



Sources of Hazardous Substances in the PASSAIC RIVER STUDY AREA

POTENTIALLY RESPONSIBLE PARTY:

Monsanto Company

PREPARED BY:
MAXUS ENERGY CORPORATION
ON BEHALF OF THE
OCCIDENTAL CHEMICAL CORPORATION

**INDEX OF DOCUMENTS IN SUPPORT OF
COMMENTS CONCERNING MONSANTO COMPANY**

TAB A: Memo from ChemRisk

Summarizes evidence demonstrating that Monsanto discharged PCBs and PCDD/Fs to the Passaic River.

TAB B: Table Summarizing Liability of Monsanto Company

This table illustrates that hazardous substances used on site by Monsanto and found in the soil and ground water were also found at significant concentrations in sediment samples adjacent to the facility.

TAB C: Documents Demonstrating Hazardous Substances Used On-Site

1989 Toxic Chemical Release Inventory, 1989 New Jersey Department of Environmental Protection Generator Inspection Report and other documents indicate that hazardous substances, including maleic anhydride, benzene, ethylene oxide, phenol, phosphoric acid, toluene and PCBs were used at the property.

TAB D: Excerpt from United States Department of Interior, Report on the Quality of the Interstate Waters of the Lower Passaic River and Upper and Lower Bays of New York Harbor

This report locates a pipe having a 27" diameter along the waterfront of the Monsanto property which discharged to the Passaic River.

TAB E: Excerpt from 1961 Passaic Valley Sewerage Commission Monthly Report

Report states that a turbid liquid with a pH of 2-3 was seen discharging from the Monsanto property to the Passaic River.

TAB F: Excerpts from Passaic Valley Sewerage Commission Annual Reports

These reports indicate that polluting discharges, including high concentrations of ortho phosphate, were discharged from the Monsanto property to the Passaic River.

TAB G: IntraSearch Aerial Photographic Analysis

Analysis of photographs from the Monsanto property note several discharge plumes or sediment trails emanating from Monsanto to the Passaic River.

TAB H: 1983 New Jersey Department of Environmental Protection Inspection Form

Inspection noted leaks from detergent drums and that there was no containment system in place to handle leaks or spills in the drum storage area.

TAB I: EPA Record of Decision for Syncon Resins Superfund Site

This report notes that the shallow aquifer below the neighboring Syncon Resins Superfund Site transports contaminants to the Passaic River.

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850090009



Stroudwater Crossing
1685 Congress Street
Portland, ME 04102
207.774.0012
FAX 207.774.8263

MEMORANDUM

To: Amanda Birrell (Vinson & Elkins)
From: Steve Huntley
Date: June 29, 1995
Re: Comments on Monsanto 104(e) Response

In 1967 or 1968, Monsanto drained 2,000 gallons of PCB thermal heating fluid into a trench that flowed onto site surface soils in a designated disposal area referred to as the PCB disposal area (PDA). In 1972, another 2,000 gallons of PCB thermal heating fluid were discharged to this area. The PDA is approximately 500 feet northeast of the Passaic River. Maximum soil concentrations measured in 1983 and 1984, in the PCB disposal area, were 436,000 ppm (44% wt.), 507,000 ppm (51% wt.), 195,000 ppm (20% wt.), and 186,000 ppm (19% wt.) at stations B-2A, B-5, B-24, and B-26 respectively. PCBs were measured as Aroclor 1248. All of these samples were collected at a depth of 4-6 feet. Only a few other samples were collected between these sampling points and the river: for example, station 9-D (123,000 ppm @ 2-4'), station S-6 (10,500 ppm @ 4-6'), station S-3 (146 ppm @ 4-6'), and station C (144 ppm @ 4-6'). Substantially lower concentrations of Aroclor 1260 were also measured in a few samples collected from the PDA. Based on the data provided in the 1991 Roux Associates report, it does not appear that the area between the PDA and the river is fully delineated.

PCBs have also been detected at elevated concentrations in secondary settling ponds west of the PDA. Station SSP-1, located approximately 340 feet from the river contained 280 ppm Aroclor 1248 and 43 ppm Aroclor 1260. In contrast, station SSP-5, also just over 300 feet from the river, contained 200 ppm Aroclor 1260, but no Aroclor 1248. Again, there do not appear to be any samples showing decreased contamination between the area of high PCB soil contamination and the river. Taken together these samples provide strong evidence of extensive PCB contamination across the site.

The pattern of widespread Aroclor 1248 contamination and lessor Aroclor 1254 and 1260 contamination at the Monsanto site is consistent with the distribution of these mixtures in Passaic River sediments adjacent to the site. As shown below, Aroclor 1248 concentrations (ppb) are consistently higher than either Aroclor 1254 or Aroclor 1260 concentrations (ppb) at depths of 22 and 46 inches.

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<u>Sample</u>	<u>Depth</u>	<u>Date</u>	<u>Aroclor 1248</u>	<u>Aroclor 1254</u>	<u>Aroclor 1260</u>
77A001	0"	1992	ND	ND	ND
77A012	22"	1974*	1,620	ND	1,220
77A024	46"	1954*	1,720	1,620	973

* these dates are based on minimum sediment accumulation rates; therefore, actual dates of PCB deposition are likely more recent

Cesium-137 radiodating of these sediments, collected 93 feet from the Monsanto shoreline, indicate that the PCBs were deposited in these sediments sometime post-1954, which is consistent with the period of time Monsanto dumped PCBs in the PDA (i.e., 1967-1972). The fact that the ²¹⁰Pb activities were scattered in the sediment core from this location is consistent with the presence of a sewer outfall adjacent to this sampling location, which would cause some mixing of sediments. The difference in concentration of Aroclor 1248 in site soils to river sediments is not unexpected given the mechanisms by which PCBs would have been transported to the river.

There are several mechanisms by which PCBs could have entered the Passaic River. First, PCBs may become solubilized in groundwater and transported to the river where they would tend to adsorb to the organic rich sediments of the river. Levels of PCBs in groundwater approximately 60 feet from the river indicate that some PCBs have moved with the groundwater into the river. It should also be noted that groundwater collected at monitoring well 8d, located at the edge of the Passaic River, contained elevated concentrations of chlorinated benzenes which are also attributed to the site. Chlorinated benzenes have also been detected in Passaic River sediments at station 77. Much higher concentrations of chlorinated benzenes were measured at monitoring well 3d, which confirms that groundwater flow is in a southwesterly direction towards the river.

EPA has confirmed the transport of groundwater contaminants to the Passaic River for the Syncon Resins Superfund Site, whose property neighbors the Monsanto property. The EPA¹ reports that:

"lateral movements of contaminants within the shallow aquifer are not restricted. The groundwater flow within the shallow aquifer can transport these contaminants to the Passaic River. This groundwater movement, in conjunction with tidal flushing, is one of the principal means of off-site transport of contaminants."

Just as contaminants have moved from the Syncon Resin site to the Passaic River, so could groundwater contaminants on the Monsanto site. Shallow water table aquifers located within such close proximity are expected to be hydrologically similar. Neither of these properties have sheet piling or bulkheads along the river which can serve to alter the transport of groundwater contaminants to the river.

¹Environmental Protection Agency. 1986. Superfund Record of Decision: Syncon Resins. EPA/ROD/R02-86/033.

Secondly, runoff and spillage of PCB-contaminated soils into the river during periods of heavy rainfall and during remediation also provide a mechanism of transport. This theory is supported by the measurement of 79 ppm Aroclor 1248 in surface soils at station B14-SS-01 located approximately 75 feet from the rivers edge. These data indicate that PCB-contaminated soils have moved from the PDA towards the river.

The pattern of PCB contamination of Passaic River sediments is consistent with the pattern of contamination of Monsanto site soils. On the Monsanto site, Aroclors 1248, 1254, and 1260 are found at varying concentrations, with Aroclor 1248 found at the highest concentrations. The same trend is seen in Passaic River sediments. The lower concentrations found in river sediments is attributable to the effect of dilution as PCBs move across surface soils and as PCB-contaminated groundwater migrates into the river. The fact that PCB contaminated sediment core samples were collected downstream of the most highly contaminated portion of the site, near the sewer outfall, further demonstrates that the Monsanto site is the source of PCBs in Passaic River sediments.

Recent data indicates that, other than TCDD, the PCDD/F congeners responsible for the greatest amount of risk are 1,2,3,4,7,8-HxCDF and 2,3,4,7,8-PeCDF. These results are consistent with our most recent fingerprinting results that indicate that a PCB-type dioxin fingerprint pattern is present in Passaic River sediments at sampling station 77 in proportions significantly greater than any other sampling location along the river, primarily in the post-1970 time periods. These data indicate that Monsanto is not only a major source of PCBs to the river, but is also a significant source of PCDD/Fs to the river.

In summary, there are several reasons why Monsanto is liable for contamination of the Passaic River Study Area:

1. Monsanto discharged highly concentrated PCB mixtures into soils within 500 feet of the Passaic River.
2. Although the site area near the river was not fully delineated, there is evidence that PCBs have moved through the groundwater and soils towards the river. Groundwater discharge of contaminants to the Passaic River has been demonstrated by EPA at the adjacent Syncon Resins site.
3. The same Aroclor mixtures found in site soils are also found in Passaic River sediment immediately adjacent to the site. In both site soils and river sediments, Aroclor 1248 is found at the highest concentrations and Aroclor 1260 is found at lower concentrations. The finding of chlorinated benzenes in both site groundwater and river sediments also provides confirmation that Monsanto has impacted the Passaic River.
4. Aroclor mixtures are known to be contaminated with PCDFs. Recent data indicates that, other than TCDD, the PCDD/F congeners responsible for the greatest amount of risk are 1,2,3,4,7,8-HxCDF and 2,3,4,7,8-PeCDF. A review of our source data base indicate that these two congeners are more closely associated with PCBs than any other PCDD/F source. This conclusion is supported by our recent PCDD/F fingerprinting analysis indicating that a PCB-type fingerprint predominates at station 77.

In conclusion, there is overwhelming evidence that Monsanto is responsible for PCB and PCDD/F contamination of the Passaic River.

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**MONSANTO COMPANY
SUMMARY**

COMPANY	TYPE AND YEARS OF OPERATION	HAZARDOUS SUBSTANCES STORED/USED/ PRODUCED AT FACILITY	HAZARDOUS SUBSTANCES IN SOIL AND GROUNDWATER AT FACILITY	DOCUMENTED DISCHARGES OF HAZARDOUS SUBSTANCES TO RIVER	OTHER PATHWAYS TO DISCHARGE HAZARDOUS SUBSTANCES	HAZARDOUS SUBSTANCES USED AT FACILITY OR FOUND IN SOIL OR GROUNDWATER IDENTIFIED IN PASSAIC RIVER SEDIMENTS ADJACENT TO SITE
<p>Monsanto Chemical Company Pennsylvania Avenue Kearny, New Jersey 07032</p> <p>Monsanto Company 800 N. Lindbergh Boulevard St. Louis, Missouri 63167</p>	<p>Manufactured surfactants, alkylphenols and polyvinyl chloride at some time between 1954-1991</p>	<p>PCBs Maleic anhydride Bis (2 ethylhexyl) phthalate¹ Benzene Ethylene oxide Phosphoric acid Phenol Toluene</p>	<p><u>Soil</u> PCBs Fluorene Pyrene Bis (2 ethylhexyl) phthalate Phenanthrene Fluoranthene Benzo(a) anthracene Lead Phenol</p> <p><u>Groundwater</u> PCBs bis (2 ethylhexyl) phthalate Fluorene Benzene Fluoranthene Phenanthrene Pyrene Toluene Phenol</p>	<p>U.S. DOI Report located 27" pipe along Monsanto property which discharged to the Passaic River</p> <p>1961 PVSC Report noted discharge of "turbid liquid" from Monsanto property to the Passaic River</p> <p>PVSC Annual Reports document polluting discharges, including high concentrations of ortho phosphate, from Monsanto property to Passaic River</p> <p>1974 PVSC Annual Report documents that groundwater from Monsanto facility infiltrated storm sewer and discharged to Passaic River</p>	<p>Surface water runoff from contaminated soils at the facility</p> <p>Migration of contaminated groundwater to the Passaic River</p>	<p>PCB - 1248 (1730 ug/kg) PCB - 1260 (1220 ug/kg) PCB - 1254 (1620 ug/kg) Bis (2 ethylhexyl)phthalate (160,000 ug/kg) Phenanthrene (94,000 ug/kg) Fluoranthene (71,000 ug/kg) Pyrene (66,000 ug/kg) Benzo (a)Anthracene (42,000 ug/kg) Fluorene (15,000 ug/kg) TEPH (1,850,000 ug/kg) Lead (730 mg/kg) Toluene (20 ug/kg)</p>

¹ Commonly used as a plasticizer in the manufacture of polyvinyl chloride (PVC)

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Toxic Chemical Release Inventory
TRIS

EPA-ID: NJD002444933

MONSANTO CO.
PENNSYLVANIA AVE.
KEARNY, NJ 07032

LAST-UPDATE: January 30, 1991

REPORTING-YEAR: 1989

EPA-REGION: 02

COUNTY: HUDSON

COUNTY-CODE: 34017

LATITUDE: 0404431

LONGITUDE: 0740702

D&B-NO: 049681240

TRIS-ID: 07032MNSNTPENNS

SIC-CODES:
2869 - MFG-INDUSTRIAL ORGANIC CHEMICALS NEC
2865 - MFG-CYCLIC CRUDES & INTERMEDIATES
NA

CONTACT-NAME: RONALD PANASIEWICZ

CONTACT-PHONE: 201-578-8033

COVERED-FACILITY: Data covers an entire facility

PARENT-COMPANY: MONSANTO CO.

PARENT-D&B-NO: 006266803

CHEM-RELS-INFO:
Chemical Info
CAS #: 000075218
Name: ETHYLENE OXIDE

Manufacture/Process/Other Use Info
Other Use: as a chemical processing aid

Release/Transfer Info
Release Medium: Non-Point Air Release
Range: Midpoint of range
Amount (lbs): 2100.00

850090016

TRIS, December 31, 1989

Release/Transfer Info
Release Medium: Point Air Release
Range: Midpoint of range
Amount (lbs): 880.00

Release/Transfer Info
Release Medium: POTW Transfer
POTW Address:
KEARNY WASTEWATER TREATMENT PL ANT
39 CENTRAL AVE.
KEARNY, NJ 07032
County: HUDSON
Range: Estimate

Release/Transfer Summary (lbs)
Air: 2980.0
Water: 0.0
Land: 0.0
All Releases: 2980.0
POTW: 0.0
Offsite: 0.0
All Transfers: 0.0
All Releases and Transfers: 2980.0

Waste Treatment Info
Sequential Treatment: No
Not based on operating data

Chemical Info
CAS #: 007664382
Name: PHOSPHORIC ACID

Manufacture/Process/Other Use Info

Release/Transfer Info
Release Medium: Non-Point Air Release
Range: Estimate

Release/Transfer Info
Release Medium: Point Air Release
Range: Estimate

Release/Transfer Info
Release Medium: POTW Transfer
POTW Address:
KEARNY WASTEWATER TREATMENT PL ANT
39 CENTRAL AVE.
KEARNY, NJ 07032
County: HUDSON
Range: Estimate

Release/Transfer Summary (lbs)
Air: 0.0

850090017

TRIS, December 31, 1989

Water: 0.0
Land: 0.0
All Releases: 0.0
POTW: 0.0
Offsite: 0.0
All Transfers: 0.0
All Releases and Transfers: 0.0

Waste Treatment Info
Sequential Treatment: No
Not based on operating data

Chemical Info
CAS #: 000108316
Name: MALEIC ANHYDRIDE

Manufacture/Process/Other Use Info

Release/Transfer Info
Release Medium: Non-Point Air Release
Range: Midpoint of range
Amount (lbs): 640.00

Release/Transfer Info
Release Medium: Point Air Release
Range: Midpoint of range
Amount (lbs): 210.00

Release/Transfer Info
Release Medium: POTW Transfer
POTW Address:
KEARNY WASTEWATER TREATMENT PL ANT
39 CENTRAL AVE.
KEARNY, NJ 07032
County: HUDSON
Range: Estimate

Release/Transfer Summary (lbs)
Air: 850.0
Water: 0.0
Land: 0.0
All Releases: 850.0
POTW: 0.0
Offsite: 0.0
All Transfers: 0.0
All Releases and Transfers: 850.0

Waste Treatment Info
Sequential Treatment: No
Not based on operating data

Chemical Info
CAS #: 000108952

850090018

TRIS, December 31, 1989

Name: PHENOL

Manufacture/Process/Other Use Info
Other Use: as a chemical processing aid

Release/Transfer Info
Release Medium: Non-Point Air Release
Range: Midpoint of range
Amount (lbs): 5400.00

Release/Transfer Info
Release Medium: Point Air Release
Range: Midpoint of range
Amount (lbs): 5400.00

Release/Transfer Info
Release Medium: POTW Transfer
POTW Address:
KEARNY WASTEWATER TREATMENT PL ANT
39 CENTRAL AVE.
KEARNY, NJ 07032
County: HUDSON
Range: Midpoint of range
Amount (lbs): 200.00

Release/Transfer Info
Release Medium: Offsite Transfer
Offsite Location EPA-ID: NJD053288239
Offsite Location Address:
ROLLINS ENVIRONMENTAL SERVICES
US ROUTE 322 EAST
BRIDGEPORT, NJ 08014
County: GLOUCESTER
Range: Midpoint of range
Amount (lbs): 76000.00
Treatment/Disposal Method: Incineration/Thermal Treatment

Release/Transfer Summary (lbs)
Air: 10800.0
Water: 0.0
Land: 0.0
All Releases: 10800.0
POTW: 200.0
Offsite: 76000.0
All Transfers: 76200.0
All Releases and Transfers: 87000.0

Waste Treatment Info
Sequential Treatment: No
Not based on operating data

850090019

NEW JER. DEPARTMENT OF ENVIRONMENT PROTECTION
DIVISION OF HAZARDOUS WASTE MANAGEMENT
HAZARDOUS WASTE INSPECTION REPORT

DWM-229

GENERATOR INSPECTION REPORT

FACILITY INFORMATION

FACILITY NAME: MONSANTO CHEMICAL CO. - DETERGENTS
DIVISION

FILE NUMBER: 09-07-37

VHT FACILITY FILE NUMBER: _____

PERMIT #: _____

REGION: M

INSPECTION DATE: 11-29-89

INCIDENT/CASE NUMBER: _____

INSPECTION TYPE: GENERATOR/LAND BAN

RESPONSIBLE AGENCY CODE: _____

INSPECTOR'S NAME: DAN BURGOWNE / STEPHAN SZARDENINGS

INSPECTOR'S AGENCY: DHWM

INSPECTOR'S BUREAU: MFO

EPA ID NUMBER: NJD 002444933

ADDRESS: PENNSYLVANIA AVE.

KEARNY, N.J. 07032

LOT: 49, 50, 19 BLOCK: 284, 289

COUNTY: HUDSON

FACILITY PERSONNEL: CELSO BALAN

TECHNICAL SERVICE SUPERVISOR

TELEPHONE #: (201) 589-0350

OTHER STATE EPA PERSONNEL: STEPHAN SZARDENINGS

REPORT PREPARED BY: DAN BURGOWNE / STEPHAN SZARDENINGS

REVIEWED BY: MAsterling

DATE OF REVIEW: 1/19/90

REVISION: 3
01/88

850090020

JAN 10 REC'D

TIME IN: 11:00
TIME OUT: 16:10

PHOTOS TAKEN ☐ YES ☒ NO

IF YES, HOW MANY? _____

SAMPLE TAKEN ☐ YES ☒ NO

NO. OF SAMPLES _____

HJDEP SAMPLE ID#: _____

MANIFESTS REVIEWED ☒ YES ☐ NO

Number of manifests in compliance 61

Number of manifests not in compliance 0

List manifest document numbers of those manifests not in compliance.

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SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS (continued):

On 11/24/31, I conducted a RCRA inspection of Monsanto Chemical Co. (MCC), in Albany, N.Y. With me on this inspection was Stephen Szydeninger, MBR. The purpose of this inspection was to determine compliance with N.Y. Hazardous waste regulations as established under N.Y.A.C. 7.26 et seq. and C.E.P.A. land ban restrictions requirements established under 40 CFR section 263. The facility representative was Alex Balow, Technical Services Supervisor. According to the Balow, Monsanto has been operating at this location since 1955. Facility currently employs 29 people. The alkyd plant operates 3 shifts, and at one inspection on 1 shift. The MCC facility is composed of 5 buildings located throughout the property (see map), and various raw material/end product storage tanks, and chemical reactors. The warehouse houses a QA/QC lab, a machine shop as well as various finished end products and specially raw materials. The other buildings are comprised of an office complex, guard house, boiler room (2 boilers run on natural gas), and a hazardous waste storage building that is located under the dry storage piles. All of MCC's chemical processes and products are performed outside only (see map).

MCC manufactures alkyd phenols, and abrylates alkyd phenols. These chemicals are intermediate materials that will be sold to other companies, or that they may be used in producing: A) reacting of acetone, B) liquid industrial detergents, and C) manufacture of plastic bottles.

Of these 2 types of phenols, the alkyd phenol production process, is the only one that presents a hazardous waste stream. Alkyd phenols are produced by mixing phenol and alkyd together in one of 2 reactors. These reactors contain a catalyst and are heated to 90°C. Under these conditions, the chemical reaction occurs. The reaction then goes through 2 distillation steps to separate the alkyd phenols from the other waste streams generated. During

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SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS (continued):

this process, 3 hazardous waste streams are produced:

A) The solid catalyst resin found in the reactor is considered a hazardous waste because of the phosgene present, and classified as a constituent waste DCC2/D188. The discussion of this waste stream with Richard Johnson (Manager of Hazardous Waste Facilities and Chemical Services) on 11/30/59, he stated that the waste stream is classified as C-377 - once placed in a container.

B) After the catalyst is spent, a new batch is passed into the reactor. MCC then adds benzene to the reactor. The benzene is used for its solvent properties to remove all excess resin found in the catalyst and reactor. The benzene/waste solution is then removed from the reactor and drummed. This waste should have been classified as an F005 waste, but the facility has been misclassifying the waste as a DCC1 constituent. This solution is approximately 70% benzene and 30% water.

C) The spent distillation ends are also considered a hazardous waste, because of the phosgene and monomer concentrations found. Again, these two chemicals can comprise up to 80% of the distillate. This waste is classified (properly by Monsanto) as a DCC1 waste stream for its flammability, rather than a constituent waste.

The QA/QC lab is a 2 room set up, located on the 3rd floor of the warehouse. The lab primarily receives product samples directly from the production line, and tests them to make sure the product meets their quality standards. After the testing, all unused portions are consolidated, and shipped off-site as lab waste.

The machine shop is located on the 1st floor of the warehouse. The machine shop produces only a small amount/quantity of waste oil, per month. This waste oil is produced from some cutting and drilling done. The waste oil is consolidated in a 55 gallon drum located in the center of the room. According to Mr. Baban, there

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SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS (continued):

no major engineering activities taking place. The engineering operations were reduced to a minimum.

The building used for ~~storage~~ ^{linking} is located under the city grounds, side. The building has had adequate maintenance (since last inspection of 8/10/5). All ~~the~~ ^{the} ~~rooms~~ ^{rooms} ~~and~~ ^{and} ~~the~~ ^{the} ~~site~~ ^{site} is ~~at~~ ^{at} ~~the~~ ^{the} ~~location~~ ^{location}. The area was ~~improvement~~ ^{improvement} ~~and~~ ^{and} ~~appropriate~~ ^{appropriate} ~~for~~ ^{for} ~~storage~~ ^{storage}. The problems cited at the location were for ~~having~~ ^{having} ~~adequate~~ ^{adequate} ~~clear~~ ^{clear} ~~space~~ ^{space} (between rows of ~~dike~~ ^{dike} ~~drums~~ ^{drums}), ~~having~~ ^{having} ~~no~~ ^{no} ~~clear~~ ^{clear} ~~space~~ ^{space} ~~for~~ ^{for} ~~the~~ ^{the} ~~drums~~ ^{drums}, ~~and~~ ^{and} ~~the~~ ^{the} ~~drums~~ ^{drums} ~~are~~ ^{are} ~~not~~ ^{not} ~~being~~ ^{being} ~~kept~~ ^{kept} ~~in~~ ⁱⁿ ~~the~~ ^{the} ~~best~~ ^{best} ~~condition~~ ^{condition}, and ~~linking~~ ^{linking} ~~to~~ ^{to} ~~keep~~ ^{keep} ~~a~~ ^a ~~written~~ ^{written} ~~log~~ ^{log} ~~stating~~ ^{stating} ~~the~~ ^{the} ~~area~~ ^{area} ~~is~~ ^{is} ~~used~~ ^{used} ~~daily~~ ^{daily} (Mr. Brown stated he does perform a daily inspection every day, but was not aware documentation is needed).

The facility does not utilize any underground storage tanks at all on the facility grounds, and has no further need since their tanks now run on natural gas only.

The facility has found all areas of the facility to be well maintained and managed. The site at this time, was 2-55 gal X 725, 1-55 gal DCC2, 1-55 gal U147 (dike drums), 45-30 gal fiber drums DCC2, 1-15 gal petroleum permanganate. These drums appeared to be in good working order, and well managed.

The facility also maintains several spill stations, self contained breathing apparatus, and an assortment of firefighting equipment throughout the facility.

The required documentation review was conducted, and found that ~~the~~ ^{the} ~~following~~ ^{following} ~~1) written~~ ^{1) written} ~~description~~ ^{description} ~~for~~ ^{for} ~~each~~ ^{each} ~~position~~ ^{position} ~~related~~ ^{related} ~~to~~ ^{to} ~~hazardous~~ ^{hazardous} ~~waste~~ ^{waste} ~~management~~ ^{management}, ~~2) list~~ ^{2) list} ~~of~~ ^{of} ~~names~~ ^{names}, ~~ADDRESSES~~ ^{ADDRESSES}, ~~and~~ ^{and} ~~phone~~ ^{phone} ~~numbers~~ ^{numbers} ~~in~~ ⁱⁿ ~~contingency~~ ^{contingency} ~~plan~~ ^{plan}, and ~~3) list~~ ^{3) list} ~~of~~ ^{of} ~~the~~ ^{the} ~~facility~~ ^{facility} ~~related~~ ^{related} ~~to~~ ^{to} ~~hazardous~~ ^{hazardous} ~~waste~~ ^{waste} ~~management~~ ^{management}, ~~and~~ ^{and} ~~new~~ ^{new} ~~2) written~~ ^{2) written} ~~information~~ ^{information}, MCC was in full compliance.

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SUMMARY OF FINDINGSFACILITY DESCRIPTION AND OPERATIONS (continued):

The facility does produce a land disposal restricted waste that has been previously misclassified by MCC in the past. This was the D001 (solid catalyst resin impregnated with toluene) that should have been classified as an F005 waste. For this reason, I feel that a referral to USEPA is necessary.

** SHOULD BE 377 (PHENOL IS CONSTITUENT)

⊕ SHOULD BE F005 70% TOLUENE/30% WATER SOLUTION⁵ - USED FOR SOLVENT PROPERTIES TO DRAW WATER FROM CATALYST WHEN ADDED TO REACTOR.

☒ - Should be X726

Describe the activities that result in the generation of hazardous waste.

- MANUFACTURE OF ALKYL PHENOL A) SYNTHETIC SOLID RESIN IM-PREGNATED WITH PHENOL (D002) (U188). **

B) SPENT DISTILLATION ENDS - FLAMMABLE (D001) ^{contains phenols and nonene.}

- WHEN ADDING NEW CATALYST TO SYSTEM, USE TOLUENE (D001) TO EXTRACT EXCESS WATER (DONE @ ONCE A YEAR). ⊕

- WASTE OIL FROM MAINTENANCE SHOP (X725). ☒

- VARIOUS LAB PACK ITEMS - FROM QA/QC - PERIODIC SHIPMENTS

Identify the hazardous waste located on site, and estimate the approximate quantities of each. (Identify Waste Codes)

2 - 55 gal drums X725 → WASTE OIL (from maintenance shop)

1 - 55 gal drum D002 → CORROSIVE SOLID (^{contains} PHOSPHORIC ACID)

1 - 55 gal drum U147 → MALEIC ANHYDRIDE

45 - 30 gal fiber drums D002 → SYNTHETIC SOLID RESIN THAT IS IMPREGNATED WITH PHENOL.

1 - 15 gal drum POTASSIUM PERMANGENATE *

* bought by Monsanto, but never utilized. Was never bought back by the seller. Shipping it off-site as haz. waste.

GENERAL CHECKLIST		YES	NO	N/A
GENERAL				
7:26-7.4(a)1	Does the Generator have an EPA ID number?	✓	—	—
HAZARDOUS WASTE DETERMINATION				
7:26-8.5(a)	Did the generator test its waste to determine whether it is hazardous?	✓	—	—
7:26-8.5(b)	Did the generator determine the hazardous characteristics based upon knowledge of process?	✓	—	—
	Is the waste hazardous?	✓	—	—
7:26-8.5(d)	Were test results, waste analysis, or other determinations made in accordance with this section kept for three years from the date that the waste was last sent to an on-site or off-site TSP?	✓	—	—
MANIFESTS				
7:26-7.4(a)4	Does each manifest have the following information? Please circle the elements missing and obtain a copy of the incomplete manifests. (List those manifests that are deficient on G-1).	✓	—	—
7:26-7.4(a)41	The generator's name, address and phone number.	✓	—	—
7:26-7.4(a)411	The generator's EPA ID number.	✓	—	—
7:26-7.4(a)4111	The hauler(s) name, address phone number and NJ registration.	✓	—	—
7:26-7.4(a)41v	The hauler(s) EPA ID number.	✓	—	—
7:26-7.4(a)4v	The name, address and phone number of the designated TSD facility.	✓	—	—
7:26-7.4(a)4v1	The TSP's EPA ID number.	✓	—	—
7:26-7.4(a)4v	The name, address and phone number of the designated TSD facility.	✓	—	—
7:26-7.4(a)4v11	The name, type and quantity of hazardous waste being shipped, including such particulars as may be required regarding same?	✓	—	—
7:26-7.4(a)4v111	Special handling instructions and any other information required on the form to be shipped by generator?	✓	—	—

		YES	NO	N/A
7:26-7.4(3)	Did the generator describe all N.O.S. wastes in Section J?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)ix	When shipping hazardous waste to a waste reuse facility does the generator enter the waste reuse facility I.D. # in the section G of the Uniform Manifest?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5	Before allowing the manifested waste to leave the generator's property, did the generator:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5i	Sign the manifest certification by hand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5ii	Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5iii	Retain one copy and forward one copy to the state of origin and one copy to the state of destination?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5iv	Provide the required numbers of copies for: generator, each hauler, owner/operator of the designated facility, as well as one copy returned to the generator by the facility owner/operator?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5v	Give the remaining copies of the manifest form to the hauler?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(f)	Has the generator maintained facility records for three (3) years? (Manifest(s), exception report(s) and waste analysis)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(h)1	Has the generator received signed copies of portion B (from the TSD facility) of all manifests for waste shipped off site more than 35 days ago?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-7.4(h)1	If not: Did the generator contact the hauler and/or the owner or operator of the TSD and the NJDEP at (609) 292-8341 to inform the NJDEP of the situation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-7.4(h)2	Have exception reports been submitted to the Department covering any of these shipments made more than 45 days ago?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

New Jersey Department of Environmental Protection
Division of Hazardous Waste Management
~~Two-Floor Professional Building~~
~~East Windsor, N.J. 08600~~

2 BABCOCK PL, W. ORANGE, N.J. 07052
NOTICE OF VIOLATION 669-3960

1 of 2

ID NO. NJD002444933 DATE 11/29/89
NAME OF FACILITY MONSANTO CO.
LOCATION OF FACILITY PENNSYLVANIA AVE., KEARNY, N.J. 07032
NAME OF OPERATOR CELSC BALAN - TECHNICAL SERVICE SUPERVISOR

You are hereby NOTIFIED that during my inspection of your facility on the above date, the following violation(s) of the Solid Waste Management Act, (N.J.S.A. 13:1E-1 et seq.) and Regulations (N.J.A.C. 7:26-1 et seq.) promulgated thereunder and/or the Spill Compensation and Control Act, (N.J.S.A. 58:10-23.11 et seq.) and Regulations (N.J.A.C. 7:1E-1 et seq.) promulgated thereunder were observed. These violation(s) have been recorded as part of the permanent enforcement history of your facility.

DESCRIPTION OF VIOLATION N.J.A.C. 7.26-9.4(d)4v: EVERY CONTAINER SHALL
BE ARRANGED SO THAT ITS IDENTIFICATION LABEL IS VISIBLE. 7.26-9.4(d)5:
FAILING TO INSPECT HAZARDOUS WASTE CONTAINER STORAGE AREAS DAILY.
7.26-9.6(e): FAILING TO MAINTAIN PROPER AISLE SPACE (18") TO PROVIDE
UNOBSTRUCTED MOVEMENT TO PERSONNEL & EQUIPMENT. 7.26-9.4(g)6i:
JOB TITLE FOR EACH POSITION AT FACILITY RELATED TO HAZARDOUS WASTE
MANAGEMENT, AND NAME OF EMPLOYEE IN POSITION.

Remedial action to correct these violations must be initiated immediately and be completed by
December 14, 1989. Within fifteen (15) days of receipt of this Notice of Violation, you shall submit in writing, to the investigator issuing this notice at the above address, the corrective measures you have taken to attain compliance. The issuance of this document serves as notice to you that a violation has occurred and does not preclude the State of New Jersey, or any of its agencies from initiating further administrative or legal action, or from assessing penalties, with respect to this or other violations. Violations of these regulations are punishable by penalties of \$25,000 per violation.

U.J.D.E.P. EMERGENCY
HOTLINE (609) 292-7172
R.C.R.H. ADVISEMENT
PROGRAM (609) 292-8341

Shirley A. Pugnaire
Division of Hazardous Waste Management
Department of Environmental Protection

HW-004A
3/89

2/2

New Jersey Department of Environmental Protection
Division of Hazardous Waste Management
Twin Rivers Professional Building
East Windsor, N.J. 08520

2/2

2 BEECOCK PL. W. ORANGE, N.J. 07052
NOTICE OF VIOLATION 669-3460

ID NO. NJD 002414933 DATE 11/29/89
NAME OF FACILITY MONSANTO CO.
LOCATION OF FACILITY PENNSYLVANIA AVE., KEARNY, N.J. 07032
NAME OF OPERATOR CELSO BALAN - TECHNICAL SERVICE SUPERVISOR

You are hereby NOTIFIED that during my inspection of your facility on the above date, the following violation(s) of the Solid Waste Management Act, (N.J.S.A. 13:1E-1 et seq.) and Regulations (N.J.A.C. 7:26-1 et seq.) promulgated thereunder and/or the Spill Compensation and Control Act, (N.J.S.A. 58:10-23.11 et seq.) and Regulations (N.J.A.C. 7:1E-1 et seq.) promulgated thereunder were observed. These violation(s) have been recorded as part of the permanent enforcement history of your facility.

DESCRIPTION OF VIOLATION N.J.A.C. 7.26-9.4(g)(ii): WRITTEN JOB DESCRIPTION FOR EACH POSITION RELATED TO HAZARDOUS WASTE MANAGEMENT. 7.26-9.7(f) FAILURE TO HAVE LIST OF NAMES, ADDRESSES AND PHONE NUMBERS LISTED IN CONTINGENCY PLAN.

Remedial action to correct these violations must be initiated immediately and be completed by

December 14, 1989. Within fifteen (15) days of receipt of this Notice of Violation, you shall submit in writing, to the investigator issuing this notice at the above address, the corrective measures you have taken to attain compliance. The issuance of this document serves as notice to you that a violation has occurred and does not preclude the State of New Jersey, or any of its agencies from initiating further administrative or legal action, or from assessing penalties, with respect to this or other violations. Violations of these regulations are punishable by penalties of \$25,000 per violation.

N.J.D.E.P. EMERGENCY
HOTLINE (609) 292-7172
R.C.R.A. ADVISEMENT
PROGRAM (609) 292-8341

David P. Longene
Division of Hazardous Waste Management
Department of Environmental Protection

850090030

MEMO

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO MFO File through Jeff Sterling (JFS) DATE 1/11/90
 FROM Dan Burgoyne
 SUBJECT Monsanto Chemical Company Follow-Up Inspection at 1/9/90

A follow-up inspection was conducted at the subject facility to determine compliance with drum storage violations cited on the 11/29/89 initial inspection (7:26-9.4(d)4v, 7:26-9.4(d)5, 7:26-9.6(e)). Areas initially cited were corrected concerning labels being visible for inspection, a daily inspection log was kept for drum storage area, and adequate aisle space between containers (18") was maintained. Three drums however were found to have accumulation start dates in excess of 90 days (1 - 55 gal drum maleic anhydride A.S. date 9/10/89, 2 - 55 gal drums waste oil dated 9/20/89). An NOV was issued for this violation 7:26-9.3(a)1 as well as for 7:26-7.4(a)4vii for misclassification of toluene waste on two manifests NJA 0414755 and NJA 0326137. The waste type should be classified as F005 but was classified by the facility as D001. All other follow-up corrective action was submitted by the facility on 12/11/89, therefore compliance was achieved for all citations issued on the 11/29/89 initial inspection indicated below. Compliance for NOV's issued on 1/9/90 is set for 1/24/90, 7:26-7.4(a)4vii. citation is ~~NOV~~

Areas of Compliance

7:26-9.4(d)4v 7:26-9.6(e) 7:26-9.4(g)6ii
 " - 9.4(d)5 " - 9.4(g)6i " - 9.7(f)

New Citations Issued (1/9/90) Compliance date 1/24/90

7:26-9.3(a)1

7:26-7.4(a)4vii

850090031

MEMO

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO MFO File through Jeff Sterling JS DATE 1/19/90
FROM Dan Ruggione
SUBJECT Monsanto Chemical Company Follow-up Inspection of 1/9/90

Addendum - As per my conversation with Richard Johnson of BHWREC the facility should be advised to classify their phenol waste type as C377 and not D002/U188 since phenol is a constituent of the waste. I also informed Mr. Celso Balan of Monsanto to classify the machine shop oil as X786 and not X785. I explained that X785 should only be used for oil spill clean-ups, the call was made 1/19/90.

pg 3013
3 Babcock Place
West Orange, N.J. 07052

NOTICE OF VIOLATION

ID NO. NJD003444933 DATE 1/9/90
NAME OF FACILITY Monsanto Chemical Company
LOCATION OF FACILITY Pennsylvania Avenue, Kearny, N.J. 07032
NAME OF OPERATOR Mr Celso Galan

You are hereby NOTIFIED that during my inspection of your facility on the above date, the following violation(s) of the Solid Waste Management Act, (N.J.S.A. 13:1E-1 et seq.) and Regulations (N.J.A.C. 7:26-1 et seq.) promulgated thereunder and/or the Spill Compensation and Control Act, (N.J.S.A. 58:10-23.11 et seq.) and Regulations (N.J.A.C. 7:1E-1 et seq.) promulgated thereunder were observed. These violation(s) have been recorded as part of the permanent enforcement history of your facility.

DESCRIPTION OF VIOLATION 7:26-7.4(a)4 vii Facility failed to
provide on manifests (NTA # 0326137, NTA # 0414755)
the proper waste type (F005) for a waste which
is 70% toluene. Facility has been classifying this waste as D001.
7:26-9.3(a)1 Facility did store hazardous waste
in excess of 90 days (2-55 gal drums waste oil/speed oil
X700, and 1-55 gal drum maleic anhydride U147).

Remedial action to correct these violations must be initiated immediately and be completed by

January 24, 1990. Within fifteen (15) days of receipt of this Notice of Violation, you shall submit in writing, to the investigator issuing this notice at the above address, the corrective measures you have taken to attain compliance. The issuance of this document serves as notice to you that a violation has occurred and does not preclude the State of New Jersey, or any of its agencies from initiating further administrative or legal action, or from assessing penalties with respect to this or other violations. Violations of these regulations are punishable by penalties of \$25,000 per violation.

David J. Buzan
Division of Hazardous Waste Management
Department of Environmental Protection

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
BUREAU OF FIELD OPERATIONS

171

ENFORCEMENT REFERRAL

TO: JACOB E. YACOV through JEFF STERLING DATE: 1/9/90
FROM: DAN BURGOWNE REGION: METRO
RE: MONSANTO CO. UJD 002444933 PENNSYLVANIA AVE.
Name of Facility 49,49 R 284 ID Number KEARNY Location Address HUDSON
Lot and Block PENNSYLVANIA AVE. KEARNY, N.J. 07032 Township MR. CELSO BALAN County
Mailing Address Responsible Party

The attached inspection/investigation report(s) dated 11/29/89 is being referred and it is recommended a _____ be issued for violations of:

- NJAC 7:26- 9.4(d)4v - FAILURE TO HAVE DUMP IDENTIFICATION LABEL VISIBLE.
9.4(d)5 - FAILING TO PERFORM DAILY INSPECTIONS OF HAZARDOUS WASTE STORAGE AREA.
9.6(e) - FAILING TO PROVIDE PROPER AISLE SPACE BETWEEN CONTAINERS
9.4(g)6i - NAME OF EMPLOYEE AND JOB TITLE, FOR EACH EMPLOYEE, RELATED TO HAZARDOUS WASTE MANAGEMENT.
9.4(g)6ii - WRITTEN JOB DESCRIPTION FOR EACH POSITION RELATED TO HAZARDOUS WASTE MANAGEMENT.
9.7(f) - FAILURE TO LIST NAMES, ADDRESSES, AND PHONE NUMBERS IN CONTINGENCY PLAN

NJSA 58:10- _____

Suggested penalty: _____

ADDITIONAL COMMENTS:

All NOV's cited on 11/29/89 are in compliance. However, 2 more NOV's (7.26-9.3(a) & 7.26-9.4(vii)) were given during compliance inspection on 1/9/90. Have given until 1/24/90 to comply with these NOV's. Case should not be closed yet.

Compliance Verified on 2/8/90 (for other 2 citations issued 1/9/90).

by Dan Burgowne. Therefore,
NJSA recommended

OAS 2/7/90

REVIEWED AND APPROVED BY:

J. H. S. Ly 01-08-90

Down

there are no manifests for Creamer

Stephan

252064

REF: A COPY OF REPORT IS ATTACHED

TO: 10-SEP-87

IS

PAGE 1

SEN: MONSANTO CO. KEARNY NID002444900	TES: ROLLING ENVIRONMENTAL SERV BRIDGEPORT NID002080009	DBP1 CHARACTERISTIC OF IGNITABILITY	MAN: NID002080009 ✓ AMT: 72000 P DATE: 1/20/87
SEN: MONSANTO CO. KEARNY NID002444900	TES: ROLLING ENVIRONMENTAL SERV BRIDGEPORT NID002080009	DBP1 CHARACTERISTIC OF IGNITABILITY	MAN: NID002080009 ✓ AMT: 72000 P DATE: 1/20/87
SEN: MONSANTO CO. KEARNY NID002444900	TES: ROLLING ENVIRONMENTAL SERV BRIDGEPORT NID002080009	DBP1 CHARACTERISTIC OF IGNITABILITY	MAN: NID002080009 ✓ AMT: 42000 P DATE: 1/20/87
★ SEN: MONSANTO CO. KEARNY NID002444900	TES: CHEMICAL WASTE MGT NEWARK NID002080009	DBP2 LEAD	MAN: NID002080009 ✓ AMT: 00 P DATE: 1/20/87
SEN: MONSANTO CO. KEARNY NID002444900	TES: ROLLING ENVIRONMENTAL SERV BRIDGEPORT NID002080009	DBP1 CHARACTERISTIC OF IGNITABILITY	MAN: NID002080009 ✓ AMT: 38542 P DATE: 6/20/87
★ SEN: MONSANTO CO. KEARNY NID002444900	TES: ROLLING ENVIRONMENTAL SERV BRIDGEPORT NID002080009	DBP2 FRENZ	MAN: NID002080009 ✓ AMT: 6900 P DATE: 6/20/87
SEN: MONSANTO CO. KEARNY NID002444900	TES: ROLLING ENVIRONMENTAL SERV BRIDGEPORT NID002080009	DBP1 CHARACTERISTIC OF IGNITABILITY	MAN: NID002080009 ✓ AMT: 30800 P DATE: 7/21/87
SEN: MONSANTO CO. KEARNY NID002444900	TES: ROLLING ENVIRONMENTAL SERV BRIDGEPORT NID002080009	DBP1 CHARACTERISTIC OF IGNITABILITY	MAN: NID002080009 ✓ AMT: 37900 P DATE: 7/22/87
SEN: MONSANTO CO. KEARNY NID002444900	TES: ROLLING ENVIRONMENTAL SERV BRIDGEPORT NID002080009	DBP1 CHARACTERISTIC OF IGNITABILITY	MAN: NID002080009 ✓ AMT: 36200 P DATE: 8/14/87
SEN: MONSANTO CO. KEARNY NID002444900	TES: ROLLING ENVIRONMENTAL SERV BRIDGEPORT NID002080009	DBP1 CHARACTERISTIC OF IGNITABILITY	MAN: NID002080009 ✓ AMT: 35700 P DATE: 8/15/87
SEN: MONSANTO CO. KEARNY NID002444900	TES: ROLLING ENVIRONMENTAL SERV BRIDGEPORT NID002080009	DBP1 CHARACTERISTIC OF IGNITABILITY	MAN: NID002080009 ✓ AMT: 37742 P DATE: 9/23/87
SEN: MONSANTO CO. KEARNY NID002444900	TES: ROLLING ENVIRONMENTAL SERV BRIDGEPORT NID002080009	DBP1 CHARACTERISTIC OF IGNITABILITY	MAN: NID002080009 ✓ AMT: 16700 P DATE: 9/23/87
SEN: MONSANTO CO. KEARNY NID002444900	TES: ROLLING ENVIRONMENTAL SERV BRIDGEPORT NID002080009	DBP1 CHARACTERISTIC OF IGNITABILITY	MAN: NID002080009 ✓ AMT: 4200 P DATE: 9/23/87

850090035

★ SEN: MONSANTO CO.
KEARNEY
N00022444900

TES: SOL CHEMICAL SERVICES INC
BRIDGEPORT
N00022444900

1185
FUMIGANT

MAN: N00022444900 ✓
AMT: 10000 F
DATE: 12/10/87

SEN: MONSANTO CO.
KEARNEY
N00022444900

TES: ROLLING ENVIRONMENTAL SERV
BRIDGEPORT
N00022444900

0001
CHARACTERISTIC OF IGNITABILITY

MAN: N00022444900 ✓
AMT: 10000 F
DATE: 12/25/87

SEN: MONSANTO CO.
KEARNEY
N00022444900

TES: ROLLING ENVIRONMENTAL SERV
BRIDGEPORT
N00022444900

0001
CHARACTERISTIC OF IGNITABILITY

MAN: N00022444900 ✓
AMT: 10000 F
DATE: 12/12/87

SEN: MONSANTO CO.
KEARNEY
N00022444900

TES: ROLLING ENVIRONMENTAL SERV
BRIDGEPORT
N00022444900

0001
CHARACTERISTIC OF IGNITABILITY

MAN: N00022444900 ✓
AMT: 10000 F
DATE: 12/10/87

SEN: MONSANTO CO.
KEARNEY
N00022444900

TES: ROLLING ENVIRONMENTAL SERV
BRIDGEPORT
N00022444900

0001
CHARACTERISTIC OF IGNITABILITY

MAN: N00022444900 ✓
AMT: 10000 F
DATE: 1/22/88

★ SEN: MONSANTO CO.
KEARNEY
N00022444900

TES: CHEMICAL WET MANAGEMENT INC
EMELLE
AL0000002464

1518
CHEMICAL PROCESS-SOLID, NOS

MAN: AL0000002464 ✓
AMT: 10000 F
DATE: 1/25/88

★ SEN: MONSANTO CO.
KEARNEY
N00022444900

TES: CHEMICAL WET MANAGEMENT INC
EMELLE
AL0000002464

0147
MALEIC ANHYDRIDE

MAN: AL0000002464 ✓
AMT: 1300 F
DATE: 1/25/88

SEN: MONSANTO CO.
KEARNEY
N00022444900

TES: ROLLING ENVIRONMENTAL SERV
BRIDGEPORT
N00022444900

0001
CHARACTERISTIC OF IGNITABILITY

MAN: N00022444900 ✓
AMT: 10000 F
DATE: 2/1/88

SEN: MONSANTO CO.
KEARNEY
N00022444900

TES: ROLLING ENVIRONMENTAL SERV
BATON ROUGE
LA0000000007

0001
CHARACTERISTIC OF IGNITABILITY

MAN: LA0000000007 ✓
AMT: 40000 F
DATE: 2/11/88

SEN: MONSANTO CO.
KEARNEY
N00022444900

TES: ROLLING ENVIRONMENTAL SERV
BRIDGEPORT
N00022444900

0001
CHARACTERISTIC OF IGNITABILITY

MAN: N00022444900 ✓
AMT: 10000 F
DATE: 2/16/88

SEN: MONSANTO CO.
KEARNEY
N00022444900

TES: ROLLING ENVIRONMENTAL SERV
BRIDGEPORT
N00022444900

0001
CHARACTERISTIC OF IGNITABILITY

MAN: N00022444900 ✓
AMT: 10000 F
DATE: 2/15/88

SEN: MONSANTO CO.
KEARNEY
N00022444900

TES: ROLLING ENVIRONMENTAL SERV
BRIDGEPORT
N00022444900

0001
CHARACTERISTIC OF IGNITABILITY

MAN: N00022444900 ✓
AMT: 10000 F
DATE: 2/20/88

★ SEN: MONSANTO CO.
KEARNEY
N00022444900

TES: ROLLING ENVIRONMENTAL SERV
BRIDGEPORT
N00022444900

1702
OIL SPILL CLEANUP MATERIAL

MAN: N00022444900 ✓
AMT: 6400 F
DATE: 2/25/88

PAGE 2

SEN: MONSANTO CO.
KEARNEY

TES: ROLLING ENVIRONMENTAL SERV
BRIDGEPORT

0001

MAN: N00022444900 ✓

SEN: MONSANTO CO. KEARNY N00822444900	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N0082268205	DATE: 2/12/88 0821 CHARACTERISTIC OF IGNITABILITY MAN: N048414745 ✓ AMT: 38458 F DATE: 3/12/88
SEN: MONSANTO CO. KEARNY N00822444900	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N0082268205	0821 CHARACTERISTIC OF IGNITABILITY MAN: N048414745 ✓ AMT: 42732 F DATE: 3/12/88
SEN: MONSANTO CO. KEARNY N00822444900	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N0082268205	0821 CHARACTERISTIC OF IGNITABILITY MAN: N048414745 ✓ AMT: 37632 F DATE: 3/12/88
SEN: MONSANTO CO. KEARNY N00822444900	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N0082268205	0821 CHARACTERISTIC OF IGNITABILITY MAN: N048414745 ✓ AMT: 37642 F DATE: 3/12/88
SEN: MONSANTO CO. KEARNY N00822444900	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N0082268205	0821 CHARACTERISTIC OF IGNITABILITY MAN: N048414745 ✓ AMT: 38228 F DATE: 3/12/88
SEN: MONSANTO CO. KEARNY N00822444900	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N0082268205	0821 CHARACTERISTIC OF IGNITABILITY MAN: N048414745 ✓ AMT: 48528 F DATE: 3/12/88
SEN: MONSANTO CO. KEARNY N00822444900	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N0082268205	0821 CHARACTERISTIC OF IGNITABILITY MAN: N048414745 ✓ AMT: 37428 F DATE: 3/12/88
SEN: MONSANTO CO. KEARNY N00822444900	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N0082268205	0821 CHARACTERISTIC OF IGNITABILITY MAN: N048414745 ✓ AMT: 36428 F DATE: 5/11/88
SEN: MONSANTO CO. KEARNY N00822444900	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N0082268205	0821 CHARACTERISTIC OF IGNITABILITY MAN: N048414745 ✓ AMT: 39728 F DATE: 5/17/88
SEN: MONSANTO CO. KEARNY N00822444900	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N0082268205	1725 DIL SPILL CLEANUP MATERIAL MAN: N048414751 ✓ AMT: 2111 F DATE: 5/27/88
SEN: MONSANTO CO. KEARNY N00822444900	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N0082268205	0822 CHARACTERISTIC OF CORROSIVITY MAN: N048414752 ✓ AMT: 7167 F DATE: 5/27/88
SEN: MONSANTO CO. KEARNY N00822444900	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N0082268205	0821 CHARACTERISTIC OF IGNITABILITY MAN: N048414753 ✓ AMT: 42122 F DATE: 6/12/88

PAGE 2

SEN: MONSANTO CO. KEARNY N00822444900	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N0082268205	0821 CHARACTERISTIC OF IGNITABILITY MAN: N048414754 ✓ AMT: 33568 F DATE: 6/13/88
SEN: MONSANTO CO. KEARNY N00822444900	TECH: CHEMICAL WASTE MANAGEMENT INC DALLAS	1725 DIL SPILL CLEANUP MATERIAL MAN: N048414755 ✓ AMT: 2111 F DATE: 6/13/88

★

SEN: MONSANTO CO. KEARNY N00000000000	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N00000000000	DATE: 6/16/88 DPP: CHARACTERISTIC OF IGNITABILITY	MAN: N000000000 ✓ AMT: 5000 P DATE: 7/16/88
SEN: MONSANTO CO. KEARNY N00000000000	TECH: CHEMICAL WASTE MANAGEMENT INC EMELLE N00000000000	TYPE OIL SPILL CLEANUP MATERIAL	MAN: ALACRATOR ✓ AMT: 44200 P DATE: 7/27/88
SEN: MONSANTO CO. KEARNY N00000000000	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N00000000000	DPP: CHARACTERISTIC OF IGNITABILITY	MAN: N000000000 ✓ AMT: 30000 P DATE: 8/14/88
SEN: MONSANTO CO. KEARNY N00000000000	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N00000000000	TYPE CHARACTERISTIC OF CORROSIVITY	MAN: N000000000 ✓ AMT: 7000 P DATE: 8/25/88
SEN: MONSANTO CO. KEARNY N00000000000	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N00000000000	DPP: CHARACTERISTIC OF IGNITABILITY	MAN: N000000000 ✓ AMT: 36000 P DATE: 8/12/88
SEN: MONSANTO CO. KEARNY N00000000000	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N00000000000	DPP: CHARACTERISTIC OF IGNITABILITY	MAN: N000000000 ✓ AMT: 35000 P DATE: 11/16/88
SEN: MONSANTO CO. KEARNY N00000000000	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N00000000000	DPP: CHARACTERISTIC OF IGNITABILITY	MAN: N000000000 ✓ AMT: 36000 P DATE: 12/15/88
SEN: MONSANTO CO. KEARNY N00000000000	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N00000000000	DPP: CHARACTERISTIC OF IGNITABILITY	MAN: N000000000 ✓ AMT: 39000 P DATE: 1/28/89
SEN: MONSANTO CO. KEARNY N00000000000	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N00000000000	DPP: CHARACTERISTIC OF IGNITABILITY	MAN: N000000000 ✓ AMT: 5000 P DATE: 2/15/89
SEN: MONSANTO CO. KEARNY N00000000000	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N00000000000	DPP: CHARACTERISTIC OF IGNITABILITY	MAN: N000000000 ✓ AMT: 36000 P DATE: 2/21/89
SEN: MONSANTO CO. KEARNY N00000000000	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N00000000000	DPP: CHARACTERISTIC OF IGNITABILITY	MAN: N000000000 ✓ AMT: 37000 P DATE: 2/27/89

PAGE 2

SEN: MONSANTO CO. KEARNY N00000000000	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N00000000000	DPP: CHARACTERISTIC OF IGNITABILITY	MAN: N000000000 ✓ AMT: 37000 P DATE: 3/24/89
SEN: MONSANTO CO. KEARNY N00000000000	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N00000000000	DPP: CHARACTERISTIC OF IGNITABILITY	MAN: N000000000 ✓ AMT: 37000 P DATE: 3/28/89
SEN: MONSANTO CO. KEARNY N00000000000	TECH: ROLLING ENVIRONMENTAL SERV BRIDGEPORT N00000000000	DPP: CHARACTERISTIC OF IGNITABILITY	MAN: N000000000 ✓ AMT: 37000 P DATE: 3/28/89

850090038

NOTIFICATION

SEE: KONGSANTO CO.
KONGSANTO CO.
KONGSANTO CO.

SEE: KONGSANTO CO.
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SEE: KONGSANTO CO.
KONGSANTO CO.
KONGSANTO CO.

NOTIFICATION

TEC: FOLLOWING ENVIRONMENTAL SER.
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TEC: FOLLOWING ENVIRONMENTAL SER.
FOLLOWING ENVIRONMENTAL SER.
FOLLOWING ENVIRONMENTAL SER.

DATE: 4/17/85

SEE: CHARACTERISTIC OF IDENTIFIABILITY

NAME: KONGSANTO ✓
AMT: 75000 P
DATE: 4/17/85

SEE: CHARACTERISTIC OF IDENTIFIABILITY

NAME: KONGSANTO ✓
AMT: 75000 P
DATE: 4/17/85

SEE: CHARACTERISTIC OF IDENTIFIABILITY

NAME: KONGSANTO ✓
AMT: 75000 P
DATE: 7/16/85

MEMO

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO MFO File #09-0737 thru Jett Starling ^(1/15) DATE 2/7/90FROM Don BuzganeSUBJECT Monsanto Company, Pennsylvania Air Permit Follow-up Insp 2-16/90

The subject facility has complied with citations issued on the 1/4/90 follow-up inspection. A letter was submitted by Constantine Barriel addressing NJAC 7.4 (a) 4 vii as to proper waste classification, and the 3 drums - (55 gal) stored in excess of 90 days were found to be removed, no additional hazardous waste stored at this time. Copies of the manifests for the two shipments (NSA 0642059 & NSA 0642068) are attached. No further enforcement action required at this time.

Areas of Compliance

NJAC 7:26-7.4(a) 4 vii

" 7:26-9.3 (a) 1

Monsanto

JAN 16 1990

Monsanto Company
Pennsylvania Avenue
Kearny, New Jersey 07032
Phone: (201) 589-0350

January 10, 1990

Mr. Daniel Burgoyne
NJDEP-Hazardous Waste Management
2 Babcock Place
West Orange, N.J. 07052

RE: Description of Violation:
7:26-7.4(a) 4VII--A generator must provide the following
information on the manifest form:
The name, type and quantity of hazardous waste being shipped,
including such particulars as may be required regarding
same.

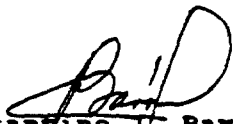
Manifest # NJA-0326137 Dated 9/28/87
NJA-0414755 Dated 7/5/88

Dear Mr. Burgoyne:

The facility will provide the proper waste type (F005) for a waste which contains 70% Toluene (Spent Toluene Mixture). The facility has been classifying this waste as D001. The corrective measure will take place immediately. The proper hazardous waste information will be provided on the manifest form.

Should questions arise concerning this matter, feel free to contact me at (201) 578-8060.

Sincerely,


Constantino J. Barrial
Environmental Engineer

850090041



State of New Jersey
Department of Environmental Protection
Division of Hazardous Waste Management
Manifest Section
CN 028, Trenton, NJ 08625

Please type or print in block letters. (Form designed for use on eight (12-inch) typewriter.)

Form Approved OMB No. 2050-0035 Expires 9-30-97

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.		2. Page 1 of 1		3. Information in this shaded area is not required by Federal law	
4. Generator's Name and Mailing Address MORRISANTO COMPANY PENNSYLVANIA AVE READING, PA				A. State Manifest Document Number NJA 0642059			
5. Generator's Phone () 215 384-0250				B. State Generator's ID SAHE			
6. Transporter 1 Company Name S+J TRANSPORTATION CO		7. US EPA ID Number MD071429976		8. State Trans ID MS-2217		9. Transporter's Phone ()	
10. Transporter 2 Company Name		11. US EPA ID Number		D. State Trans ID MS-2217		E. State Trans ID MS-2217	
9. Designated Facility Name and Site Address PAINE ENVIRONMENTAL SERVICES ROUTE 322 + I-295 MORRIS HART, N.J. 08014				10. US EPA ID Number		F. Transporter's Phone ()	
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) WASTE OIL NOS, COMBUSTIBLE, NA 1270				12. Containers No. Type		13. Total Quantity	
				14. Unit Wt./Vol		15. Waste No	
J. Additional Descriptions for Materials Listed Above OIL 10-40% SPEEDY DRY 40-60% STONES 10-20% DEBRIS 0-5%				K. Handling Codes for Wastes Listed Above TIAE			
15. Special Handling Instructions and Additional Information ROLL-UPS REF L-21596							
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.							
Printed/Typed Name CONSTANTINO J. BARRIA				Signature <i>[Signature]</i>		Month Day Year 10/12/90	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name REFES BELL JR				Signature <i>[Signature]</i>		Month Day Year 10/12/90	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Discrepancy Indication Space 240118:10-4001 NOS							
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19 Printed/Typed Name T. J. BELL							
Signature <i>[Signature]</i>				Month Day Year 10/17/91			



State of New Jersey
Department of Environmental Protection
Division of Hazardous Waste Management
Manifest Section

CN 028, Trenton, NJ 08625

Please type or print in black letters. (Form designed for use on either 12-pitch typewriter)

Form Approved OMB No. 7050-0039 Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST		1 Generator's US EPA ID No.	Manifest Page 1 of 1	2 Page 1	Information in this area is not required by Federal law
3 Generator's Name and Mailing Address MONSANTO COMPANY PENNSYLVANIA AVE. NEWARK, N.J. 07102			A State Manifest Document Number NJA 0642068		
4 Generator's Phone (201) 597-1200			B State Generator's ID SAME		
5 Transporter 1 Company Name Chemical Waste Management, Inc.			C State Trans ID 5110333		
6 Transporter 1 US EPA ID Number 0010400383			D Transporter's Phone (201) 465-6442		
7 Transporter 2 Company Name			E State Trans ID		
8 Transporter 2 US EPA ID Number			F Transporter's Phone ()		
9 Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT OF N.J. INCORPORATED 100 LISTER AVE NEWARK, N.J. 07102			G State Facility's ID 5716		
10 Designated Facility US EPA ID Number 0010400383			H Facility's Phone (201) 465-6442		
11 US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) HM a X WASTE HALIC ANHYDRIDE, GEN-A, UN 2215			12 Containers No Type	13 Total Quantity	14 Unit Wt/Vol
					15 Waste No
J Additional Descriptions for Materials Listed Above PROFLEX J37120504/mi HALIC ANHYDRIDE 100%			K Handling Codes for Wastes Listed Above SP1		
15 Special Handling Instructions and Additional Information USE PROTECTIVE CLOTHING, FACE SHIELD AND RUBBER GLOVES. AVOID CONTACT WITH EYES AND SKIN. IF CONTACT, WASH THOROUGHLY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. WORK OVER # SOL691					
16 GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name CONSTANTINO J. BARRIAL			Signature <i>Constantino J. Barrial</i> Month Day Year 10/1/90		
17 Transporter 1 Acknowledgement of Receipt of Materials					
Printed/Typed Name Anthony Williams			Signature <i>Anthony Williams</i> Month Day Year 10/1/90		
18 Transporter 2 Acknowledgement of Receipt of Materials					
Printed/Typed Name			Signature Month Day Year		
19 Discrepancy Indication Space					
20 Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19					
Printed/Typed Name J. Wayne Donald			Signature <i>J. Wayne Donald</i> Month Day Year 10/1/90		

850090043

7:26-9.3

Accumulation Time

How is waste accumulated on site?

- ☒ Containers *30 gal fiber drums / 55 gal drums*
☐ Tanks (greater than 90 days)
 (complete HWMF (TSD) Facility Checklist)
☐ Tanks (less than 90 days)
☐ Above ground
☐ Below ground
☐ Surface impoundments
 (complete HWMF (TSD) Facility Checklist)
☐ Piles (complete HWMF checklist)

7:26-9.3(a)1

 Is waste accumulated for more than
 90 days?
YES NO N/A
 — ☒ —

 STOP HERE IF THE HAZARDOUS WASTE MANAGEMENT FACILITY (TSF) CHECKLIST IS
 FILLED OUT.

Short term accumulation standards for generators who accumulate waste in containers and tanks for 90 days or less:

		YES	NO	N/A
<u>Containers</u>				
7:26-9.4	What type of containers are used for storage. Describe size, type, quantity, and nature of waste (e.g. 12 fifty-five gallon drums of waste acetone).	1-15 gal drum of <u>potassium permanganate</u> 2-55 gal waste oil X726 1-55 gal malonic anhydride 45-30 gal fiber drum DCO2 1-55 gal DCO2 phosphoric acid		
7:26-9.4(d)2	Do the containers appear to be in good condition, not in danger of leaking?	✓	—	—
	If no, describe the problem (include number of containers involved.)			
7:26-9.4(d)4i	Are all containers securely closed except those in use?	✓	—	—
7:26-9.4(d)4iii	Do the containers appear to be properly handled or stored in a manner which will minimize the risk of the container rupturing and/or leaking?	✓	—	—
7:26-9.4(d)4iv	Are containerized hazardous wastes segregated in storage by waste type?	✓	—	—
7:26-9.4(d)4v	Is every container arranged so that its identification label is visible?	—	✓	—
7:26-9.4(d)5	Is the container storage area inspected at least daily?	—	✓	—
	* FAILURE TO DOCUMENT INSPECTIONS.			
7:26-9.4(d)6	Are containers holding ignitable and reactive wastes located at least 50 (fifty) feet (15 meters) from the facilities property line?	✓	—	—
7:26-7.2(a)	Did the owner/operator conspicuously label appropriate manifest number on all hazardous waste containers that are intended for shipment?	✓	—	—
7:26-9.3(a)3	Is each container clearly dated with each period of accumulation so as to be visible for inspection?	✓	—	—

YES NO N/A

7:26-7.2(b)

Did the owner/operator insure that all containers used to transport hazardous waste off site are in conformance with applicable DOT regulations? (49CFR 171, 179)

— — ✓

Tanks (Less than 90 day storage)

7:26-9.3(b)

Does the generator accumulate hazardous waste on-site in an above ground tank?

— ✓ —

If yes, describe the tank(s):

- 1) Capacity _____
- 2) Shell thickness _____
- 3) Material Construction _____
- 4) Age of tank _____

7:26-9.3(b)

Does the generator have written approval from the Department to store hazardous waste(s) in this tank(s) for ninety days or less?

— — ↓

7:26-9.3(b)1

Does each tank(s) have sufficient shell thickness to ensure the tank will not collapse or rupture as specified by the Department?

— — —

7:26-9.3(b)4

Is the tank(s) designed so that at least 99% of the volume of each of the tanks can be emptied by direct pumping or drainage?

— — —

7:26-9.3(b)5

Is each tank(s) rendered empty (1% or less remaining) every 90 days or less?

— — —

7:26-9.3(b)6

Are all wastes removed from the tank(s) shipped off-site to an authorized facility or placed in an on-site, authorized facility?

— — —

7:26-9.3(b)8

If part of the tank is below grade, is it constructed to allow visual inspection of the tank, comparable to a totally above-ground tank and is secondary containment provided for the below grade part?

— — —

7:26-10.5(c)1

Are materials which are incompatible with the material of construction of the tank(s) placed in the tank(s)?

— — —

7:26-10.5(c)2

Does the generator use appropriate controls and practices to prevent overfilling?

— — ✓

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-10.5(c)2ii	For uncovered tanks, is there sufficient (two feet or acceptable documentation) freeboard to prevent overtopping by wave or wind action by or precipitation?	—	—	✓
7:26-9.3(b)3	Does each tank(s) or storage tank area have secondary containment?	—	—	—
7:26-10.5(d)1	Is the containment system capable of collecting and holding spills, leaks, and precipitation?	—	—	—
7:26-10.5(d)1i	Is the base underlying the tank(s) free from cracks, gaps, and sufficiently impervious to contain leaks, spills, and accumulated rainfall until the collected material is detected and removed?	—	—	—
7:26-10.5(d)1i	Does the containment system consist of material compatible with the wastes being stored?	—	—	—
7:26-10.5(d)1ii	Is the containment system sloped or otherwise designed to efficiently drain and remove liquids resulting from leaks, spills and precipitation?	—	—	—
7:26-10.5(d)1ii	Is the tank protected from contact with accumulated liquids?	—	—	—
7:26-10.5(d)iv	Does the containment system have sufficient capacity to contain ten percent of the volume of all tanks or the volume of the largest tanks whichever is greater?	—	—	—
7:26-10.5(d)2	Is run-on into the containment area prevented?	—	—	—
	If not, explain.			
7:26-10.5(d)3	Is precipitation removed from the pump or collection area in a timely manner to prevent blockage or overflow of the collection system?	—	—	—
7:26-10.5(d)4	Is spilled or leaked waste removed from the pump or collection area daily?	—	—	✓

YES NO N/A

7:26-10.5(d)41

If the collected material is hazardous waste under NJAC 7:26-8, it is managed as a hazardous waste in accordance with all applicable requirements of this chapter?

— — ☒

7:26-9.4(g)4

Personnel Training

Have facility personnel successfully completed a program of classroom instruction or on-the-job training since six months after the date of their employment or assignment to the facility or to a new position at the facility?

☒ — —

7:26-9.4(g)5

Has facility personnel taken part in an annual review of initial training?

☒ — —

7:26-9.4(g)2

Is the program directed by a person trained in hazardous waste management procedures and does it include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan to implementation) relevant to the positions in which they are employed?

☒ — —

Is there written documentation of the following:

7:26-9.4(g)61

Job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job?

— ☒ —

7:26-9.4(g)611

A written job description for each position related to hazardous waste management?

— ☒ —

7:26-9.4(g)6111

A written job description on the type and amount of both introductory and continuing training that has been and will be given to personnel in jobs related to hazardous waste management?

☒ — —

7:26-9.4(g)61v

Documentation of actual training or experience received by personnel?

☒ — —

7:26-9.4(g)7

Are training records kept on all current employees until closure of the facility and training records kept on former employees for three years from their last date of employment?

☒ — —

YES NO N/A

7:26-9.6

Preparedness and prevention

Does the facility comply with preparedness and prevention requirements including maintaining:

7:26-9.6(b)1

An internal communications or alarm system?

✓
— — —

7:26-9.6(b)2

A telephone or other device to summon emergency assistance from local authorities?

✓
— — —

7:26-9.6(b)3

Portable fire equipment, spill control equipment, and decontamination equipment?

✓
— — —

7:26-9.6(b)4

Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray system?

✓
— — —

7:26-9.6(c)

Is equipment tested and maintained?

✓
— — —

7:26-9.6(d)1

Is there immediate access to communications or alarm systems during systems during handling of hazardous waste?

✓
— — —

7:26-9.6(e)

Adequate aisle space (18") to allow unobstructed movement of personnel fire protection equipment, spill control equipment and decontamination equipment?

— ✓ —

If no, please explain.

In your opinion, do the types of waste on site require all of the above procedures, or are some not required?

✓
— — —

Explain.

7:26-9.6(f)

Has the facility made the following arrangements, as appropriate for the type waste handled on site:

— — —

7:26-9.6(f)1

Familiarize police, fire departments and emergency response teams with the layout of the facility and hazardous waste handled - associated hazardous places where facility personnel would normally be working, entrances and roads inside facility and possible evacuation routes.

✓
— — —

YES NO N/A

7:26-9.6(f)2	Where more than one police and fire department might respond to an emergency, is there an agreement designating primary emergency authority to a specific police or fire department, and agreements with any others to provide support to the primary emergency authority?	—	—	✓
7:26-9.6(f)3	Agreements with emergency response contractors, and equipment supplies? <i>CWM - Newark</i>	✓	—	—
7:26-9.6(f)4	Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosion, or discharges at the facility?	✓	—	—
7:26-9.6(f)5	Arrangement with local fire departments to inspect the facility on a regular basis with at least two (2) inspections annually?	✓	—	—
7:26-9.6(f)6	If authorities identified in (f)1 through 5, above decline to enter into such arrangements, has the owner, or operator documented this refusal in the operating record.	—	—	✓
7:26-9.4(g)8	Are semi-annual drills conducted involving all employees and appropriate local authorities to test emergency response capabilities at the facility in accordance with the contingency plan and emergency procedures development pursuant to NJAC 7.26-9.7?	✓	—	—
7:26-9.4(g)81	If no, did the owner or operator petition the Department for an exemption from the semi annual drills requirement?	—	—	✓
7:26-9.4(g)811	Did the owner or operator petition the Department for an exemption excluding some or all local officials in the semi annual drill requirements?	—	—	✓
	If yes, did the owner operator provide those specific local officials with written approval of the exemption?	—	—	✓

YES NO N/A

7:26-9.7

Contingency Plan and Emergency Procedures

7:26-9.7(a)

Does the facility have a written contingency plan for emergency procedures designed to deal with fires, explosions, hazards to human health or environment, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents into air, soil or surface water?

☒ _ _ _

7:26-9.7(b)

Are provisions of the plan carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment?

☒ _ _ _

7:26-9.7(c)

Does the contingency plan describes the actions facility personnel shall take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility?

☒ _ _ _

7:26-9.7(d)

Did the owner or operator prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112 or 300 or a Discharge Prevention Containment and Countermeasure (DPCCC) Plan in accordance with N.J.A.C. 7:12-4.1 et seq.

☒ _ _ _

If yes, did the owner or operator amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this section?

☒ _ _ _

7:26-9.7(e)

Does the plan describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services?

☒ _ _ _

YES NO N/A

7:26-9.7(f)

Does the plan list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator and is this list kept up to date? Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates?

need home address☒

7:26-9.7(g)

Does the plan include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external) and decontamination equipment), where this equipment is required? Is the list up-to-date? In addition, does the plan include the location and physical description of each item on the list, and a brief outline of its capabilities?

☒

7:26-9.7(h)

Does the plan include an evacuation procedure for facility personnel where there is a possibility that evacuation could be necessary? Does this plan describe signal(s) to be used to begin evacuation, evacuation routes, and alternative evacuation routes (in case where the primary routes could be blocked by releases of hazardous waste or fires)?

☒

7:26-9.7(i)

Is a copy of the contingency plan and all revisions to the plan:

1. Maintained at the facility;

☒

2. Has the contingency plan been submitted to local authorities (police fire departments, emergency response teams)?

☒

7:26-9.7(k)

Is there an employee on site or on call at all times with the responsibility of coordinating, all emergency response measures?

☒

APPENDIX A

SOLVENT IDENTIFICATION CHECKLIST

1. Does the handler generate any of the following F001 constituents (i.e., spent halogenated solvents used in degreasing) as a result of being used in the process either in pure form or commercial grade?

tetrachloroethylene	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
trichloroethylene	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
methylene chloride	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1,1,1-trichloroethane	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
carbon tetrachloride	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
chlorinated fluorocarbons	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

2. Does the handler generate any of the following F002 constituents (i.e., spent halogenated solvents) as a result of being used in the process either in pure form or commercial grade?

tetrachloroethylene	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
trichloroethylene	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
methylene chloride	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1,1,1-trichloroethane	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
chlorobenzene	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
trichlorofluoromethane	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1,1,2-trichloro-1,2,2-trifluoroethane	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
ortho-dichlorobenzene	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

3. Does the handler generate any of the following F003 constituents (i.e., spent nonhalogenated solvents) as a result of being used in the process either in pure form or commercial grade?

xylene	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
acetone	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
ethyl acetate	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
ethyl benzene	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
ethyl ether	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
methyl isobutyl ketone	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
n-butyl alcohol	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
cyclohexanone	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
methanol	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

If the F003 waste stream has been mixed with a solid waste, does the resultant mixture exhibit the ignitability characteristic?

☐ Yes ☐ No

2/1/7

4. Does the handler generate any of the following F004 constituents (i.e., spent nonhalogenated solvents) as a result of being used in the process either in pure form or commercial grade?

cresols and cresylic acid
nitrobenzene

☐ Yes ☒ No
☐ Yes ☒ No

5. Does the handler generate any of the following F005 constituents (i.e., spent nonhalogenated solvents) as a result of being used in the process either in pure form or commercial grade?

toluene

methyl ethyl ketone

carbon disulfide

isobutanol

pyridine

*used once a yr.
activation of catalyst*

*in lab
" "*

☒ Yes ☐ No
☐ Yes ☒ No
☒ Yes ☐ No
☒ Yes ☐ No
☒ Yes ☐ No

6. Are any of the constituents listed in questions 1 through 5 used for their "solvent" properties — that is to solubilize (dissolve) or mobilize other constituents? The following questions will be helpful in confirming this determination.

- (a) Are the constituents used as chemical carriers?

☐ Yes ☒ No

If yes, list the constituents.

- (b) Are the constituents used for degreasing/cleaning?

acetone used for cleaning lab glassware ☒ Yes ☐ No

If yes, list the constituents.

- (c) Are the constituents used as diluents?

☐ Yes ☒ No

If yes, list the constituents.

- (d) Are the constituents used as extractants?

☒ Yes ☐ No

If yes, list the constituents.

toluene to remove moisture from catalyst

(c) Are the constituents used for fabric scouring? ☐ Yes ☒ No

If yes, list the constituents.

(f) Are the constituents used as reaction and synthesis media? ☐ Yes ☒ No

If yes, list the constituents.

If the responses to questions 1 through 6 led the inspector to believe that the waste may be an F-solvent, answer question 7.

7. Are any of the above constituents spent solvents? (A solvent is considered "spent" when it has been used and is no longer usable without being regenerated, reclaimed, or otherwise reprocessed.) ☒ Yes ☐ No
8. If the waste is a mixture of constituents as determined in questions 1 through 6, give the concentration before use of all the constituents in the solvent mixture/blend. For example:

5%	methylene chloride
2%	trichloroethylene
25%	1,1,1-trichloroethane
<u>68%</u>	mineral spirits
100%	

N/A

If the waste stream is a mixture containing a total of 10% or more (by volume) of one or more of the F001, F002, F004, or F005 listed constituents before use, it is a listed waste.

With respect to the F003 solvent wastes, if, before use, the waste stream is mixed and contains only F003 constituents, it is a listed waste. For example:

33%	acetone
16%	methanol
<u>51%</u>	ethyl ether
100%	

N/A

If the waste stream is a mixture containing F003 constituents and a total of 10% or more of one or more of the F001, F002, F004, and F005 listed constituents before use, it is a listed waste. For example:

50%	xylene (F003)
12%	TCE (F001)
<u>38%</u>	mineral spirits
100%	

If in light of the above, the handler appears to be generating F001 - F005 hazardous wastes, refer this facility to the enforcement official for followup actions verifying the use of solvents at the facility.

**APPENDIX B
TREATMENT STANDARDS FOR F-SOLVENTS**

F001-F005 SPENT SOLVENTS	CONCENTRATION (IN MG/L)	
	WASTEWATERS	OTHER WASTES
Acetone	0.05	0.59
N-butyl	5.0	5.0
Carbon disulfide	1.05	4.81
Carbon tetrachloride	.05	.96
Chlorobenzene	.15	.05
Cresols (and cresylic acid)	2.82	.75
Cyclohexanone	.125	.75
1,2-dichlorobenzene	.65	.125
Ethyl acetate	.05	.75
Ethyl benzene	.05	.053
Ethyl ether	.05	.75
Isobutanol	5.0	5.0
Methanol	.25	.75
Methylene chloride	.20	.96
Methylene chloride (from the pharmaceutical industry)	12.7	.96
Methyl ethyl ketone	0.05	0.75
Methyl isobutyl ketone	0.05	.33
Nitrobenzene	0.66	0.125
Pyridine	1.12	0.33
Tetrachloroethylene	0.079	0.05
Toluene	1.12	0.33
1,1,1-Trichloroethane	1.05	0.41
1,2,2-Trichlor 1,2,2-trifluoroethane	1.05	0.96
Trichloroethylene	0.062	0.091
Trichlorofluoromethane	0.05	0.96
Xylene	0.05	0.15

Inspector: D. BURGOWNE / S. Szardenings
Address: 2 BRISCOCK PL.
W. ORANGE, N.J. 07052
Telephone No: (201) 629-3960

RCRA LAND DISPOSAL RESTRICTION
GENERATOR CHECKLIST

I. HANDLER IDENTIFICATION

MONSANTO CO. PENNSYLVANIA AVE.
A. Handler Name B. Street (or other identifier)
KEARNY, N.J. 07032 HUDSON
C. City D. State E. Zip Code F. County Name
Chemical mfg. of intermediate surfactants
G. Nature of Business; Identification of Operations: SIC Code(s)
NJD 002444933
H. EPA ID #
CELSO BALAN - TECHNICAL SERVICE SUPERVISOR
I. Handler Contact (Name and Phone Number)

II. GENERATOR COMPLIANCE

Comments

A. Waste Identification

1. F-Solvents

a. Does the handler generate the following wastes?

~~(1) F001, F002, F004, or F005~~ ☒ Yes ☐ No

(11) F003 ☐ Yes ☒ No

If an F003 wastestream (listed solely for ignitability) has been mixed with a non-restricted solid or hazardous waste, does the resultant mixture exhibit the ignitability characteristic?

☐ Yes ☐ No

b. Source of the above: Form 8700-12 ☐; Part A ☐; Part B ☐; Biennial/Annual Reports ☐ other (specify) ☐

Appendix A is intended to assist the inspector and enforcement official in determining whether the facility is generating F-solvent wastes, if such wastes were not identified by the facility previously. If you are concerned that F-solvent wastes may be misclassified or mislabeled, turn to Appendix A-1. To assist in identifying potentially

*catalytic resin improperly
with toluene facility has
been classifying this
waste as boot not
F005*

N/A



Filer Name: _____
ID Number: _____
Inspector: _____
Date: _____

Comments

misclassified F-solvents, Appendix A-2 presents a list of corresponding F and U wastes. Note concerns below: _____

2. Dioxin wastes

- a. Does the handler report the generation of the following wastes? (The following industries may generate listed dioxin wastes: organic chemicals, pesticide or formulator.)

(i) F020 - F023, F026 - F027 ☐ Yes ☒ No
(ii) F028 ☐ Yes ☒ No

[F-solvent BDLT standards are presented as Appendix B]

3. California Waste Identification

- a. Does the facility handle any of the following wastes?

(i) D002 ☐ Yes ☒ No
(ii) D004 - D011 ☒ Yes ☐ No
D005 D008 Lub pak Homs

- b. Does the generator handle any hazardous wastes characterized by high concentrations of halogenated organic constituents (HOCs), metals, or cyanides? ☐ Yes ☐ No

[California waste standards are presented as Appendix C]

- c. Is the generator handling any of the F, K, P, or U wastes subject to the "soft hammer" that may qualify as California wastes due to HOC, metals, or cyanide content? See Appendix D for a listing of California constituents likely to be found by waste code. *U198* ☒ Yes ☐ No

- d. Has the generator conducted the paint filter test (Method 9095) [§268.32(1)]? ☒ Yes ☐ No*

- e. Has the generator conducted any testing of these hazardous wastes to determine whether the concentrations qualify the hazardous wastes as California wastes? ☒ Yes ☐ No

If no, has the generator retained records documenting his "applied knowledge" that the hazardous waste is not a California waste? *N/A*

☐ Yes ☐ No

2/ A potential violation is indicated

GEN-2

850090059

Handler Name: _____
ID Number: _____
Inspector: _____
Date: _____

Comments

If "no" is answered to both parts of this question, a violation is indicated. [§268.7(a)]

Describe the nature of the records:

- f. Source of the above: Form 8700-12 _____; Part A _____; Part B _____; Biennial/Annual Report _____; other (specify) _____.

4. First Third Waste Identification

- a. Does the generator handle any of the wastes listed as First Third Wastes in §268.10? See Appendix E for listing. List First Third Wastes handled by the generator here:

- b. Does the generator handle any soft-hammer wastes (Appendices D-1, D-2, and F)? If so, list those wastes:

U-188 phenol

- c. Are any of the soft-hammered wastes California wastes (see Appendix G)? Yes ☐ No ☒

If yes, the wastes must meet BDAT standards prior to disposal.

- d. Has the Regional Administrator received demonstrations/certifications for all soft hammered wastes to be land disposed [§268.8(a)(2)]? Yes ☐ No ☒

- e. Source of the above: Form 8700-12 _____; Part A _____; Part B _____; Biennial/Annual Report _____; other (specify) _____.

B. BDAT Treatability Group - Treatment Standards Identification

1. Does the generator mix restricted wastes with different treatment standards for constituents of concern? Yes ☐ No ☒
2. If yes, did the generator select the most stringent treatment standard for the constituent of concern [§268.41(b)]? Yes ☐ No ☒

2/ A potential violation is indicated

GEN-3

850090060

Handler Name: _____
ID Number: _____
Inspector: _____
Date: _____

Comments

3. P Solvents - -

- a. Did the generator correctly determine the appropriate treatability group [§268.41] of the waste (e.g., wastewaters containing solvents, nonwastewater (i.e., < 1% TOC), pharmaceutical wastewaters containing spent methylene chloride, all other spent solvent wastes)?

____ Yes ____ No*

N/A



4. California Wastes

- a. Did the generator correctly determine the distinction between liquid hazardous wastes and non-liquid hazardous wastes that contain HOCs in concentrations greater than 1,000 mg/kg [§268.32(h)]?

✓ Yes ____ No*

5. First Third Wastes

- a. Did the generator ascertain whether restricted wastes were appropriately assigned wastewater or nonwastewater designations (nonwastewaters are > 1% TOC and > 1% suspended solids) [§268.7(a)]?

✓ Yes ____ No*

- b. Does the facility handle K061 wastes?

____ Yes ✓ No

If yes, were nonwastewaters appropriately classified in either the high or low zinc subcategories (≥15% Zn) [§268.7(a)] [§268.41(a)]?

____ Yes ____ No*

N/A

- c. Does the facility handle K101 or K102 wastes?

____ Yes ✓ No

If yes, were nonwastewaters appropriately classified in either the high or low arsenic subcategories [§268.7(a)] [§268.41(a)]?

____ Yes ____ No*

N/A

- d. Is there any reason to believe that the generator may have diluted the waste to change the applicable treatment standard (based on review of process operation, pipe routing, point of sampling)?

____ Yes ✓ No

2/ A potential violation is indicated

GEN-4

850090061

Handler Name: _____
ID Number: _____
Inspector: _____
Date: _____

Comments

C. Waste Analysis - -

1. Did the generator determine whether the waste exceeds treatment standards based on §268.7(a):

N/A

a. Knowledge of wastes ☐ Yes ☐ No

- (i) List wastes for which "applied knowledge" was used:

b. TCLP ☐ Yes ☐ No

- (i) List wastes for which "TCLP" was used:

- (ii) Appendix D lists wastes for which treatment standards are expressed as concentrations in waste extract. Were any wastes handled by the generator subject to waste extract standards not tested using the TCLP? ☐ Yes ☐ No

If yes, list: _____

c. Total waste analysis ☒ Yes ☐ No

- d. If files were retained, describe content and basis of applied knowledge determination:

If determined by TCLP or total constituent analysis, provide date of last test, frequency of testing, and attach test results.

Dates/frequency: 5/7/80 plan to test streams this year

Note which wastes were subjected to which tests:

Note any problems (e.g., inadequate analysis, variation of waste composition/generation for applied knowledge) _____

N/A

2/ A potential violation is indicated

GEN-5

850090062

Handler Name: _____
ID Number: _____
Inspector: _____
Date: _____

Comments

- e. Were wastes tested using TCLP or total constituent analysis when a process or wastestream changed [§264.13(a)(3)(i) or §265.13(a)(3)(i)]? Yes No

2. Did the restricted wastes exceed applicable treatability group treatment standards upon generation [§268.7(a)(1)]?

List those that exceeded standards: _____

List those that did not exceed standards: _____

3. Did the generator dilute the waste or the treatment residual so as to substitute for adequate treatment [§268.3] Yes No

D. Management

1. Onsite management

- a. Were restricted wastes managed onsite? Yes No

If no, go to "2".

- b. For wastes that exceed treatment standards, was treatment in regulated units, storage for greater than 90 days, and/or disposal conducted? Yes No

If yes, TSDP checklist must be completed.

2. Offsite Management

- a. If restricted wastes exceed treatment standards, did generator provide treatment facility notification with each shipment? [268.7(a)(1)]:

(i) EPA Hazardous Waste Number? Yes No

(ii) Corresponding treatment standard? Yes No

(iii) Manifest number? Yes No

(iv) Waste analysis, if available? Yes No

Facility has been
shipping to home waste
as D001 which should
have been classified
as P005 with land
ben notification
Manifests NTA 0326137
" 044755
attached.

2/ A potential violation is indicated

GEN-6

850090063

Generator Name: _____
ID Number: _____
Inspector: _____
Date: _____

Comments

Identify offsite treatment facilities CWM - Chicago,
CWM - Emmett, Alabama Rollins Env Bridgeport

b. If restricted wastes do not exceed treatment standards, did generator provide the disposal facility with a notice and certification including:

- (i) EPA hazardous waste I.D. number? ☐ Yes ☐ No*
- (ii) Corresponding treatment standard? ☐ Yes ☐ No*
- (iii) Manifest number ☐ Yes ☐ No*
- (iii) Certification regarding waste and that it meets treatment standards? ☐ Yes ☐ No*

Identify land disposal facilities receiving the BDAT certified wastes _____

c. If the generator's waste is subject to a §268.5 case by case exemption, a §268.6 "no migration" exemption, or a nationwide variance (see Appendix E for restricted wastes subject to nationwide variances), does the generator's records indicate that he or she submits with each waste shipment [§268.7(a)(3)]:

- (i) EPA Hazardous Waste Number? ☐ Yes ☐ No*
- (ii) Corresponding Treatment Standards? ☐ Yes ☐ No*
- (iii) All applicable prohibitions? ☐ Yes ☐ No*
- (iv) The manifest number? ☐ Yes ☐ No*
- (v) The date the wastes are subject to prohibitions? ☐ Yes ☐ No*
- (vi) Does generator keep records of all notifications/certifications sent to offsite facilities? ☐ Yes ☐ No*

NA
3 ~~1. Not a hazardous waste~~
~~2. Not a hazardous waste~~
~~3. Not a hazardous waste~~
~~4. Not a hazardous waste~~
~~5. Not a hazardous waste~~
~~6. Not a hazardous waste~~
~~7. Not a hazardous waste~~
~~8. Not a hazardous waste~~
~~9. Not a hazardous waste~~
~~10. Not a hazardous waste~~
~~11. Not a hazardous waste~~
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~~90. Not a hazardous waste~~
~~91. Not a hazardous waste~~
~~92. Not a hazardous waste~~
~~93. Not a hazardous waste~~
~~94. Not a hazardous waste~~
~~95. Not a hazardous waste~~
~~96. Not a hazardous waste~~
~~97. Not a hazardous waste~~
~~98. Not a hazardous waste~~
~~99. Not a hazardous waste~~
~~100. Not a hazardous waste~~
N/A

2/ A potential violation is indicated

GEN-7

850090064

Handler Name: _____
ID Number: _____
Inspector: _____
Date: _____

Comments

List all prohibited wastes for which records
are not provided per above [§268.7(a)(b)]:

Identify TSDFs receiving any prohibited wastes
subject to any exemptions and variances:

- d. If handler generates a "soft hammer" waste,
does the generator send with each "soft hammer"
waste shipment to a TSDF and retain copies of,
a notice that includes [268.7(a)(4)]:

The EPA Hazardous Waste Number? ☒ Yes ☐ No*

Applicable prohibitions? ☐ Yes ☒ No*

The manifest number? ☒ Yes ☐ No*

Waste analysis data, where available?
☒ Yes ☐ No

- (i) Do the generator's records indicate that
any soft-hammer wastes are destined for
disposed in a landfill or surface
impoundment [§268.33(f)]? ☐ Yes ☒ No

If yes, list facility of destination and
waste of concern [§268.8(a)(2)]

- (ii) Has the generator submitted demonstra-
tions and certifications for each
"soft-hammered" waste destined to be
disposed in landfill or surface impound-
ment to the Regional Administrator prior
to the shipment of waste to the TSDF
[§268.7(a)(2)]? ☐ Yes ☐ No*

- (iii) Has the generator retained a copy of the
demonstration on site [§268.8(a)(3)-
(a)(4)]? ☐ Yes ☐ No*

- (iv) Has the generator retained copies of all
§268.8 certifications sent to the TSDF
[§268.7(a)(6)] ☐ Yes ☐ No*

- A potential violation is indicated

GEN-8

850090065

Handler Name: _____
ID Number: _____
Inspector: _____
Date: _____

Comments

- (v) Did the generator submit the demonstration to the receiving facility upon the initial shipment of the waste [§268.8(a)(3)-(a)(4)]? ☐ Yes ☐ No*
- (vi) If the Regional Administrator has invalidated the certification, has the generator ceased shipment of the waste and do records indicate that the generator has informed all receiving facilities of the invalidation [§268.8(b)(3)]? ☐ Yes ☐ No*

N/A

E. Storage of Prohibited Waste

1. Were prohibited wastes stored for greater than 90 days? ☐ Yes ☐ No .
- If yes, was facility operating as a TSD under interim status or final permit [§262.34(b)]? ☐ Yes ☐ No*

If yes, TSDF Checklist must be completed.

F. Treatment Using RCRA 264/265 Exempt Units or Processes (i.e., boilers, furnaces, distillation units, wastewater treatment tanks, etc.)

1. Were treatment residuals generated from RCRA 264/265 exempt units or processes? ☐ Yes ☐ No

If yes, list type of treatment unit and processes

If yes, TSDF checklist must be completed.

2/ A potential violation is indicated

GEN-9

850090066



State of New Jersey
Department of Environmental Protection
Division of Hazardous Waste Management
Manifest Section
CN 028, Trenton, NJ 08625

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved OMB No. 2045-0055 Expires 12-31-85

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. <i>0000000000</i>	Manifest Document No. <i>0000000000</i>	2. Page 1 of 1	Information is not required by Federal law.
3. Generator's Name and Mailing Address <i>Rollins Environmental Services 1000 1st St Princeton, NJ 08542</i>				A. State Manifest Document Number NJA 0414755	
4. Generator's Phone () <i>201-951-1100</i>				B. State Generator's ID	
5. Transporter 1 Company Name <i>Rollins Environmental Services</i>		6. US EPA ID Number	C. State Trans ID		
7. Transporter 2 Company Name		8. US EPA ID Number	D. Transporter's Phone ()		
9. Designated Facility Name and Site Address <i>Rollins Environmental Services 1000 1st St Princeton, NJ 08542</i>		10. US EPA ID Number	E. State Trans ID		
			F. Transporter's Phone ()		
			G. State Facility's ID		
			H. Facility's Phone ()		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HM			12. Containers	13. Total Quantity	14. Unit (Wt/Vol)
			No.	Type	Waste No.
a. <input checked="" type="checkbox"/> <i>WASTE FLAMMABLE LIQ. NO. 12, TERNARY MIXTURE, UN 1792 (RD)</i>			<i>1</i>	<i>DRUM</i>	<i>0001</i>
b.					
c.					
d.					
J. Additional Descriptions for Materials Listed Above <i>WASTE TOLUENE-WATER MIXTURE, 70-80% TOLUENE</i>			K. Handling Codes for Wastes Listed Above		
a.			a.		
b. <i>Rollins Ref No. L-10800</i>			b.		
c.			c.		
d.			d.		
15. Special Handling Instructions and Additional Information <i>HAZARDOUS - AVOID Prolonged CONTACT WITH SKIN. INHALED: REMOVE TO FRESH AIR. SKIN & EYES: FLUSH WITH PLenty OF WATER FOR 15 MINUTES.</i>					
16. GENERATOR'S CERTIFICATION I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.					
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name <i>CELSO BALAN</i>			Signature <i>[Signature]</i>		
Month Day Year <i>07 05 87</i>					
17. Transporter 1 Acknowledgement of Receipt of Materials					
Printed/Typed Name <i>Wickey Hooten</i>			Signature <i>[Signature]</i>		
Month Day Year <i>07 05 87</i>					
18. Transporter 2 Acknowledgement of Receipt of Materials					
Printed/Typed Name			Signature		
Month Day Year					
19. Discrepancy Indication Space <i>ILLUSTRATION</i>					
20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19					
Printed/Typed Name			Signature		
Month Day Year					

In case of an emergency or spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection. (800) 292-3560 (Day) (800) 292-7172 (Night)

-U

1001TT04340P 0001

NEW JERSEY
NJ 08014 NJD052288239 (609) 467-3100

NJA 0326137

ENVIRONMENTAL SERVICES

DE, NJ 08014

NJD052288239 (609) 467-3100

FLAMMABLE LIQUID, NOS, IRRITABLE
UN 1993

1001TT04340P 0001

HAZARDOUS MATERIALS LISTED ABOVE
TOLUENE - WATER MIXTURE, 70-80% TOLUENE
ROLLINS REF NO. L-10800

A. Handling Codes for Materials Listed Above

T03

HAZARDOUS MATERIALS: AVOID PROLONGED CONTACT WITH SKIN. INHALATION: REMOVE TO FRESH AIR. SKIN & EYES: FLUSH WITH PLENTY OF WATER FOR 15 MINUTES.

CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the person who signed this declaration and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway in accordance with applicable international and national government regulations.

CEISO BALAN

Signature: *Celso Balan*

Date: 09-28-87

Authorized Representative of Receipt of Materials

Ken Williams

Signature: *Ken Williams*

Date: 09-28-87

Authorized Representative of Receipt of Materials

It is the policy of the U.S. Department of Transportation to encourage the use of the Hazardous Waste Manifest for the transportation of hazardous waste.

HAZARDOUS WASTE MANIFEST

850090068

NJA0326137

Let's protect our earth



State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

CN 029
Trenton, N.J. 08625-0029

Office of
the Director

(609) 292-1637
Fax # (609) 984-7935

SEP 24 1990

Constantino Barrial
Environmental Engineer
Monsanto Company
Pennsylvania Avenue
Kearny, New Jersey 07032

Dear Mr. Barrial:

Re: Monsanto Company
Kearny, Hudson County
Site Inspection

A representative from the Bureau of Pretreatment and Residuals inspected your facility at Pennsylvania Ave., Kearny, N.J. on September 13, 1990. A copy of the inspection report is enclosed.

If you have any questions regarding this report, please contact Philip Polios of my staff at (609) 633-3823.

Sincerely

Morton D. Fisch
Supervising Environmental Engineer
Industrial Pretreatment Section
Bureau of Pretreatment & Residuals

WFM327

Enclosure

c: Mario Graglia, PVSC



STATE OF NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

INDUSTRIAL PRETREATMENT INSPECTION REPORT

I. TYPE OF INSPECTION

DATE OF INSPECTION: 9/13/90

- A. NJPDES B. EMR Verification C. Categorical Determination
D. X Other: Annual Site Inspection

II. GENERAL INFORMATION

A. Facility Name: Monsanto Company

B. Parent Company or Affiliation: Monsanto Chemical Company

C. Facility Mailing Address:

D. Facility Street Address:

Pennsylvania Avenue
Keedy, NJ 07032

Same

E. Year present operations began at this facility: 1955

F. Authorized Representative: Ronald P. Panasiewicz
Title or Position: Plant Manager

G. Facility Contact: Constantine J. Barrial
Title or Position: Environmental Engineer
Telephone No.: (201) 578-8060

H. Facility Personnel Present at Inspection: Celso Balan
Constantine Barrial

III. PRODUCT OR SERVICE INFORMATION

- A. Narrative description of the primary manufacturing or service activity at the facility (Note if Batch, Continuous, Seasonal): Continuous manufacture of Alkyl phenols and batch mfg of ethoxylated alkyl phenols. Also, bulk terminal operations for maleic anhydride, phosphoric acid, Sodium tripolyphosphate and linear alkyl benzenes. Corporate warehouse.
- B. Principal Raw Materials Used: Phenol, Ethylene oxide, Nonene, Propylene tetramer
- C. Principal Products Produced: Alkyl phenols (Nonyl phenol & Dodecyl phenol) and Ethoxylated Alkyl Phenols

D. List all additional activities and specific processes occurring at this facility (e.g. Electroplating/Metal Finishing: identify specific processes, Laboratory, Research, etc.): QC Lab

E. For BMR Verification Inspection - Does this accurately compare to the information submitted on the BMR? Yes No X N/A
Comments: _____

IV. WATER SOURCES AND USE

A. Raw Water Sources

X Public Water Supply: Specify Kearny Water Dept
____ Private Well(s)
____ Surface Water: Specify _____

B. Are raw water sources metered or are other means available for flow measurement? Specify: Metered

C. Describe any water treatment or conditioning processes utilized: Sodium exchange resin for boiler room feed water.

D. Average Daily Water Use (Specify source of data): ~ 13,000 gpd

E. Has the company provided a water flow schematic? X Yes No
Attach sketch, if necessary. In file

F. Has the company provided a schematic process diagram? X Yes No
Attach sketch, if necessary. In file

G. For BMR Verification Inspections - Does schematic process diagram submitted with the BMR adequately represent the actual facility?
Yes No If No, list deficiencies: N/A

V. ENVIRONMENTAL CONTROL PERMITS/REGISTRATIONS HELD

A. Is facility connected to a POTW (i.e. public sewer)? X Yes No Proposed
POTW: Kearny POTW NJPDES No.: NJ 0022161

B. Facility held permits/registrations

NJPDES: Specify type _____ and Permit Number NJ

X Air Pollution: Site I.D. Number 10009

X RCRA (X Generator Storage (90 days) Treatment): ID No. NJD 002 444 933

Other: Specify _____

____ None

VI. AIR POLLUTION RELATED

- A. Are there any process tanks greater than 100 gallons? ☒ Yes ☐ No
- B. Are there any heated surface cleaners (e.g. vapor degreasers, etc.)? ☐ Yes ☒ No
- C. Does this facility have any exhaust system in conjunction with their process operations (e.g. from plating tanks, painting rooms, vapor degreasers, etc.)? ☒ Yes ☐ No
If yes, is the system registered? ☒ Yes ☐ No
Describe: Conservation vents on the Storage tank of raw materials and products
- D. Are there any air pollution control devices? ☐ Yes ☒ No
Describe: _____

VII. WASTEWATER INFORMATION

- A. Discharge Method
- | | |
|---|---|
| (1) <input checked="" type="checkbox"/> public sewer | Source of Wastewater |
| (2) <input type="checkbox"/> surface water | (1) <u>Process, Sanitary, & cooling</u> |
| (3) <input type="checkbox"/> storm drain | (2) _____ |
| (4) <input type="checkbox"/> ground discharge-type: _____ | (3) _____ |
| (5) <input type="checkbox"/> waste hauler | (4) _____ |
| | (5) _____ |
- B. Applicable Standards
☒ Categorical Standards (List applicable subparts): 40 CFR 414
Subpart G - Bulk Organic Chemicals
State: _____
Local: _____
- C. Representative Sampling Point
(1) Describe sampling point(s) (if any) utilized by the facility. If none used, is a sampling point available? Describe: Wastewater tank with ~ 10-15% dilution from steam traps.

(2) Are the sampling point(s) utilized representative of the operations they are intended to monitor? ☒ Yes ☐ No If No, list deficiencies: _____

(3) Are regulated process streams metered or are other means available for flow measurement? Specify: Metered

- List Quantity of process wastewater discharged: ~ 1,200 gpd

- (4) If necessary, is sufficient flow data obtainable to allow use of the combined wastestream formula? ☒ Yes ☐ No ☐ N/A

Comments: _____

- (5) Is a certified lab used for all official analyses? ☒ Yes ☐ No ☐ N/A

Lab name and location: Enseco 205 Alewife Brook Parkway,
Cambridge, Mass 02138

Comments: NJ DEP Cert. # 59445

VIII. PRETREATMENT FACILITIES

- A. Is any treatment performed on the wastewater prior to discharge to the public sewer? ☐ Yes ☒ No

Describe/Comments: _____

- B. Is any treatment proposed to be utilized on the wastewater prior to discharge to the public sewer? ☐ Yes ☒ No ☐ N/A

Comments: _____

- C. Is this facility operating under a compliance schedule to install treatment or otherwise attain compliance with applicable standards? ☒ Yes ☐ No ☐ N/A If No, is facility in compliance? ☐ Yes ☒ No

Comments: Facility will resample for Zinc. Zinc is not used
in any process operation, however, sampling has indicated violations.

- D. Does this facility generate any sludge or other residuals as a result of its pretreatment operations? ☐ Yes ☐ No ☒ N/A

Comments: _____

How is this sludge disposed of? N/A

E. Licensed Operator

- (1) NJPDES Permit: ☐ Issued ☐ Requested ☐ Submitted ☒ Not Required

Is treatment performed or proposed (see A and B above)? ☐ Yes ☒ No

- (2) Does this facility require a licensed operator?

☐ Yes: Classification _____ ☒ No

Name of licensed operator, if any: N/A

IX. WASTE

- A. Does this facility generate any waste process materials (spent solvents, spent acids, etc.)? ☒ Yes ☐ No
 If Yes, Describe: Spent alkyl phenol catalyst, Spent alkyl phenol distillation ends, Spent toluene - hazardous; Ethoxylation filter cake - non hazardous
 Quantity generated per month: 500,000 lbs/yr
 How stored: Spent Alkyl phenol catalyst - Fiber drums, Spent Toluene & Filter cake - steel drums, Spent distillation ends go directly to truck
 How disposed: Hazardous via incineration
Non-Hazardous via Hazardous waste Landfill
- B. Does this facility generate any residuals as a result of its operations? ☒ Yes ☐ No
 If Yes, Describe: See filter cake above
 Quantity generated per month: See above
 How stored: See above
 How disposed: See above
- C. Does this facility have a designated or centralized area(s) for the storage of hazardous waste? ☒ Yes ☐ No ☐ N/A (No hazardous waste generated)
 Comments: Diked area in warehouse w/ no floor drains

X. TOXIC ORGANICS MANAGEMENT

- A. Are categorical organics used on site? ☒ Yes ☐ No

Type	How Much	How Used
<u>Phenol</u>	<u>12,000,000 lbs/yr</u>	<u>Raw Material - Alkyl Phenol</u>
<u>Toluene</u>	<u>3,000 lbs/yr</u>	<u>Catalyst drying - " "</u>

Has the facility chosen the TTO Plan option? ☐ Yes ☐ No ☒ N/A
 If yes, has a TTO Management Plan been submitted for approval? ☐ Yes ☐ No

Are other non-categorical organics used on-site in more than laboratory quantities? ☒ Yes ☐ No

Type	How Much	How Used
<u>See Attachment</u>	<u>"B"</u>	

B. Storage

- (1) Are the raw organics stored in an area appropriately safeguarded against spills reaching the sewer? ☒ Yes ☐ No

Comments: _____

- (2) Are the spent organics stored in an area appropriately safeguarded against spills reaching the sewer? ☒ Yes ☐ No ☐ N/A

Comments: _____

C. Handling Procedures

- (1) Have adequate handling procedures been developed to prevent organics used during process operations from reaching the sewer in amounts exceeding federal standards? ☒ Yes ☐ No ☐ N/A (No federal standard)

- (2) Are personnel actively implementing these procedures?
☐ Yes ☐ No ☒ Not observed

Comments: _____

- D. How are the organics used on site disposed of? Incinerated off-site

If licensed hauler used, which one? See Below

S & J Transportation Co.

Rollins Environmental Services

John Pfommer, Inc.

Lacy's Express, Inc.

Price Trucking Corp.

Chemical Waste Management

Nappi Trucking Corp.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or printed text on the paper. A few small dark specks are visible, likely due to scanning artifacts or dust on the original paper.

XII. FLOW DIAGRAM

X Verified and Attached; or - Attachment "A"
____ Sketch follows signature block

XIII. INSPECTOR(S)

Name: Philip Polios Signature: Philip Polios

Title: Environmental Engineer Date Signed: 9/17/90

Name: _____ Signature: _____

Title: _____ Date Signed: _____

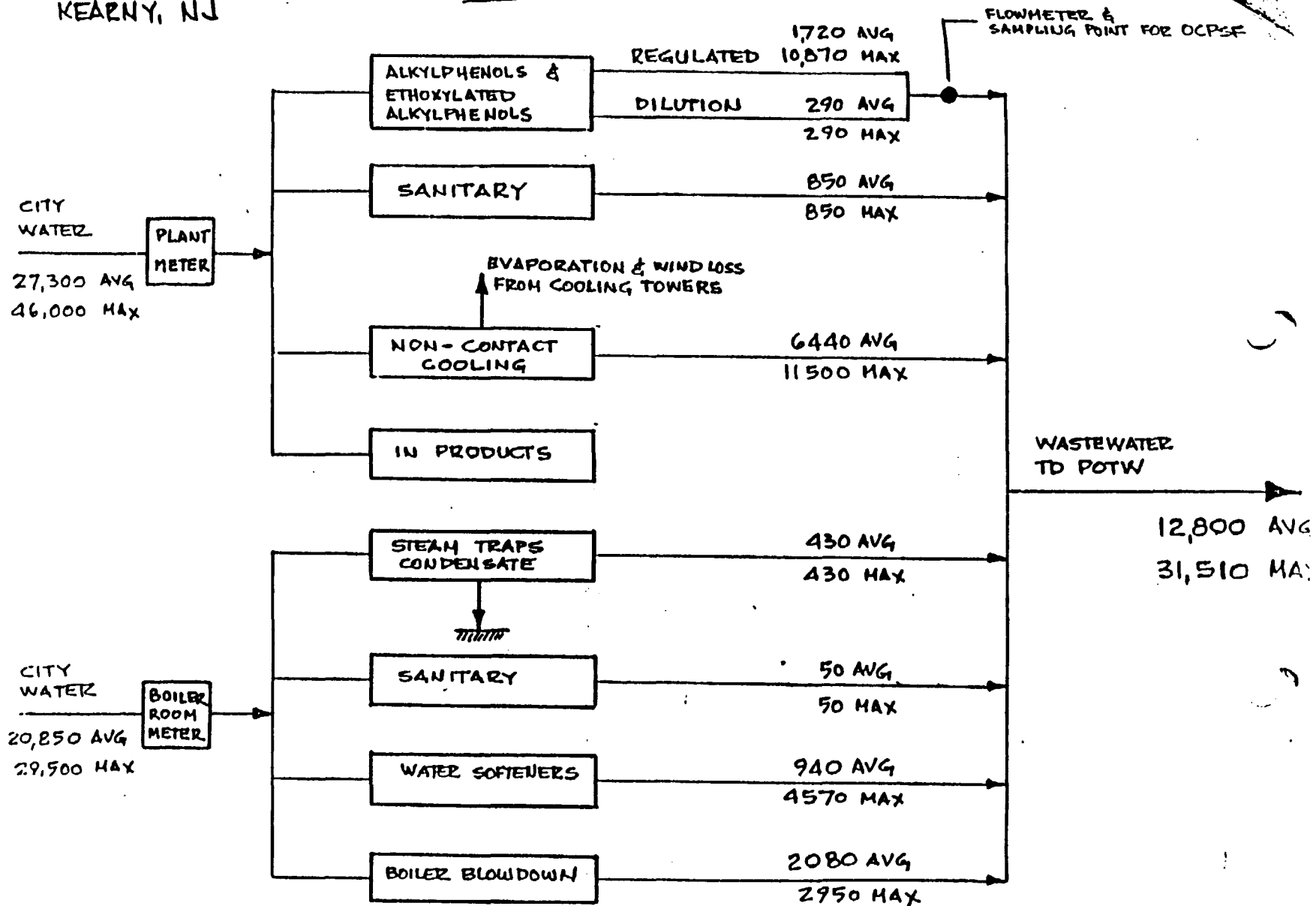
Prepared by: Philip Polios Date Submitted: 9/17/90

Reviewed by: MORTON D. FISCH Signature: M.D. Fisch
SUPERV. ENVIRON. ENGINEER
INDUSTRIAL PERMITS SECT.

Date Review Complete: _____ Date Signed: 09/21/90

MUNSANIC COMPANY
KEARNY, NJ

Attachment "A"



WASTEWATER FLOW DIAGRAM (GPD)

CB
10/89

850090078

ATTACHMENT "B"

OTHER NON-CATEGORICAL ORGANICS USED ON-SITE IN MORE THAN LABORATORY QUANTITIES.

TYPE	HOW MUCH	HOW USED
ETHYLENE OXIDE	14M LBS/YR	RAW MTL
MALEIC ANHYDRIDE	8-10M "	BULK TERMINAL
LINEAR ALKYL BENZENES	20M "	BULK TERMINAL
NONENE	M "	RAW MTL
PROPYLENE TETRAMER	5M "	RAW MTL
HEAVY OILS		
FUEL OIL	60,000 GAL/YR	BOILERS + FURNACES
THERMINOL 66 (HYDROGENATED TERPHENYLS)	10,000 LBS (CLOSE SYSTEM)	HEAT TRANSFER FLUID
KEROSENE	55 GAL/YR	CLEANING
ACETONE	55 "	CLEANING
LUB OIL	500 "	LUBRICATION
ETHANAMINE	155 "	COLOR STABILIZER
BENZOYL PEROXIDE	250 LBS/YR	BLEACHING
GASOLINE	700 GAL/YR	PLANT VEHICLES
ION EXCHANGE RESIN	9000 LBS/YR	CATALYST

MONSANTO CO
KEARNY, NJ

9/13/90

850090079



Handwritten initials: FJD

State of New Jersey
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 DIVISION OF HAZARDOUS WASTE MANAGEMENT
 LANCE R. MILLER, DIRECTOR
 ON DES
 Trenton, N.J. 08625-0028
 (609) 833-1408
 Fax: (609) 833-1484

Ronald F. Panaziewicz
 Plant Manager
 Monsanto Company
 Pennsylvania Avenue
 Kearny, NJ 07032

JUN 07 1991

RE: Notification of PCB Storage, Monsanto Company, Kearny, EPA ID No. NJD
 002 444 983

Dear Mr. Panaziewicz:

The Bureau of Hazardous Waste Engineering (Bureau) is in receipt of your letter dated March 28, 1991, notifying the Bureau of the storage of PCB solids in containers at the Monsanto Company, Kearny Plant. The Bureau has reviewed the submittal and has found that it met the requirements of N.J.A.C. 7:26-9.1(c)17iv and v. Therefore, the Bureau accepts the notification as certification that Monsanto Company has complied with the requirements of N.J.A.C. 7:26-9.1(c)17, and that the Monsanto Company Kearny Plant is designed, constructed and operated in compliance with all relevant regulations adopted pursuant to the Toxic Substance Control Act, 15 U.S.C. § 2601 et seq..

If you have any questions on this matter, please call Mr. James Bridgewater of my staff at (609) 292-9880.

Very truly yours,

Handwritten signature of Thomas Sherman

Thomas Sherman, Chief
 Bureau of Hazardous Waste Engineering

EP52/cfd
 cc: Yacoub Yacoub, BME
 Ellen Doerring, USEPA

DOCUMENT: MONSANTO
 FOLDER: CFDMOB

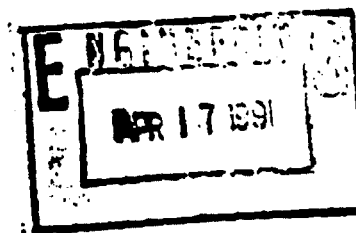


Monsanto

Monsanto Company
Pennsylvania Avenue
Kearny, New Jersey 07032
Phone: (201) 889-0880

March 28, 1991

Mr. Thomas Sherman, Chief
Bureau of Hazardous Waste Engineering
Division of Hazardous Waste Management
New Jersey Department of Environmental Protection
CNO28
Trenton, New Jersey 08625



Re: Notification of PCB Storage
Monsanto Kearny Plant Pennsylvania Avenue
Kearny, Hudson County, New Jersey 07032

Dear Mr. Sherman:

This notification of the potential storage of PCB hazardous waste at the Monsanto Kearny Plant, Pennsylvania Avenue, Kearny Hudson County, New Jersey, is submitted in compliance with N.J.A.C. 7:26-9.1 (c) 17 iv and v. The waste stored by the generator will include soils from excavations. The soil removal is part of an environmental investigation of subsurface and ground water in accordance with an Administrative Consent Order (ACO) issued by the Department.

The generator will store the soil in 55 gallon steel drums of 17C gauge. Subsequent analysis may indicate that the soils exceed 50 milligram/kilogram (mg/kg) of PCBs. The drums containing 50mg/kg of PCBs or more, will be moved to a storage area where they will be maintained in accordance with the EPA's Toxic Substance Control Act (TSCA). The drum storage will not exceed 25% of total capacity of the storage facility. Disposal activities will be arranged after waste characterization is completed.

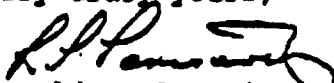
Figure 1 presents a site map and Figure 2 provides a detail of the storage Area. A copy of Monsanto's notification of potential PCB activity to the EPA Office of Toxic Substances and a copy of the EPA response are provided in Appendix 1. A description of the design and capacity of the storage facility are provided in Appendix 2.

850090081

Mr. Thomas Sherman
March 28, 1991
Page 2

Please do not hesitate to contact Constantino Barrial at 201-578-8063 if you have any comments or questions regarding this notification.

Very truly yours,


Ronald P. Panasiewicz
Plant Manager

Attachments

cc: C. J. Barrial, Monsanto
S. Y. Strautman, Roux Associates, Inc.

850090082

NOTIFICATION OF STORAGE OF PCB HAZARDOUS WASTE

This notification is submitted in accordance with N.J.A.C. 7:26-9.1 (c) 17 iv and v. A description and a sketch of the storage area are attached.

Generator: Monsanto Kearny Plant
Pennsylvania Avenue
Kearny, Hudson County, New Jersey

EPA I.D. Number: NJD002444933

Date of Storage: April 1, 1991

Description of Waste: Soil from excavation containing PCBs exceeding 50 mg/kg or ppm.

Type of Container: 55-gallon steel, 17C gauge drums stored in compliance with the Toxic Substances Control Act

Storage Facility Design/Capacity: As per TSCA requirement, 40 CFR 761.65 (b). See Appendix 2.

New Jersey Waste Number and Code: X751, PCB solids containing 50 ppm or more by dry weight of PCBs. Toxic Waste

I, A.F. Fitzgerald, certify that the generator, Monsanto Kearny Plant, Pennsylvania Avenue, Kearny, Hudson County, New Jersey; EPA I.D. # NJD002444933 is designed, constructed and operated in compliance with all relevant regulations adopted pursuant to the Toxic Substances Control Act, 15 U.S.C. §2601 *et seq.* (1976) and effective on November 30, 1990.

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate, or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true.

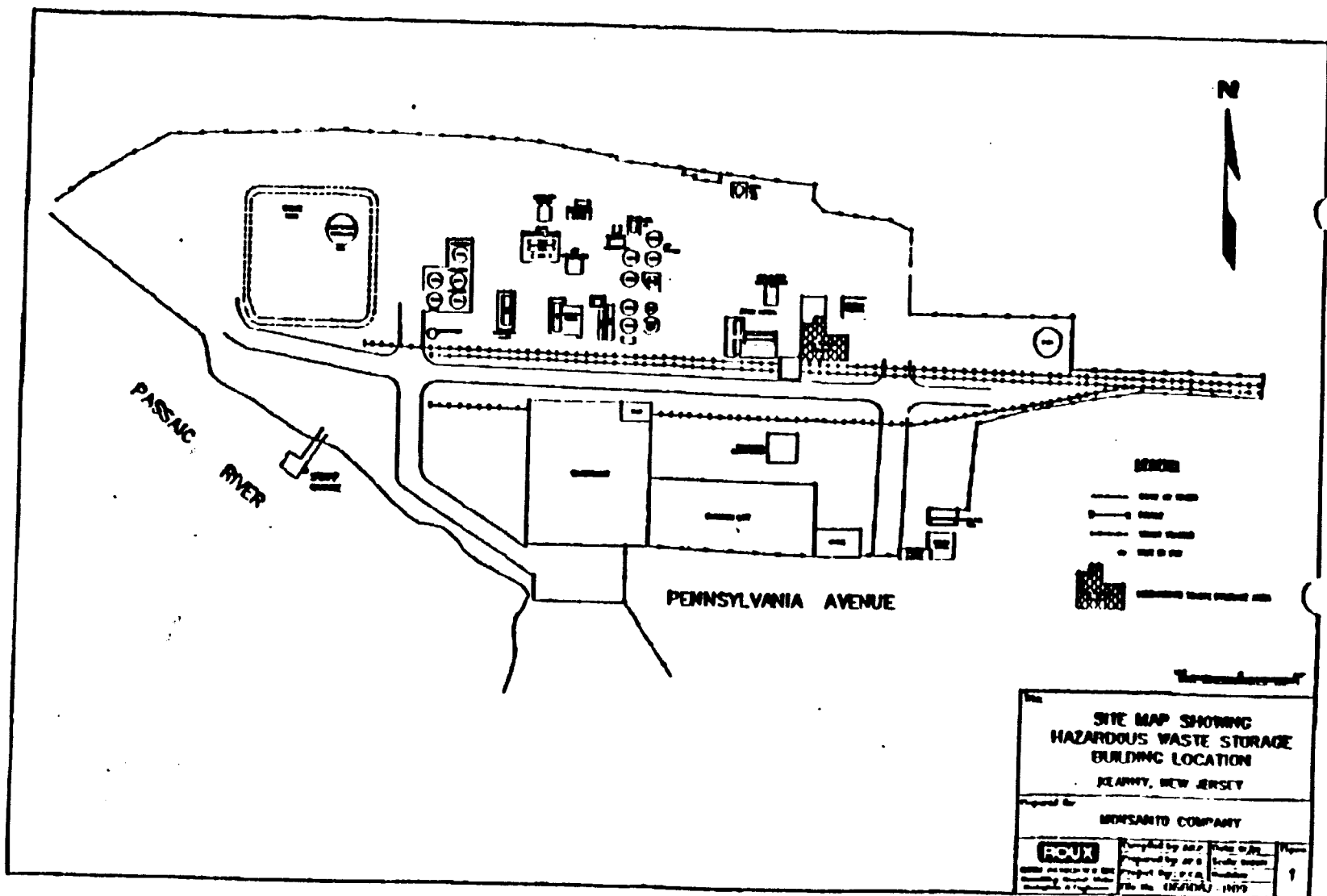
4/8/91
(Date)

A.F. Fitzgerald C. J. Fitzgerald W. R. Fitzgerald
(Name)

Vice President and General Manager, Detergent and Phosphate Division
(Title)

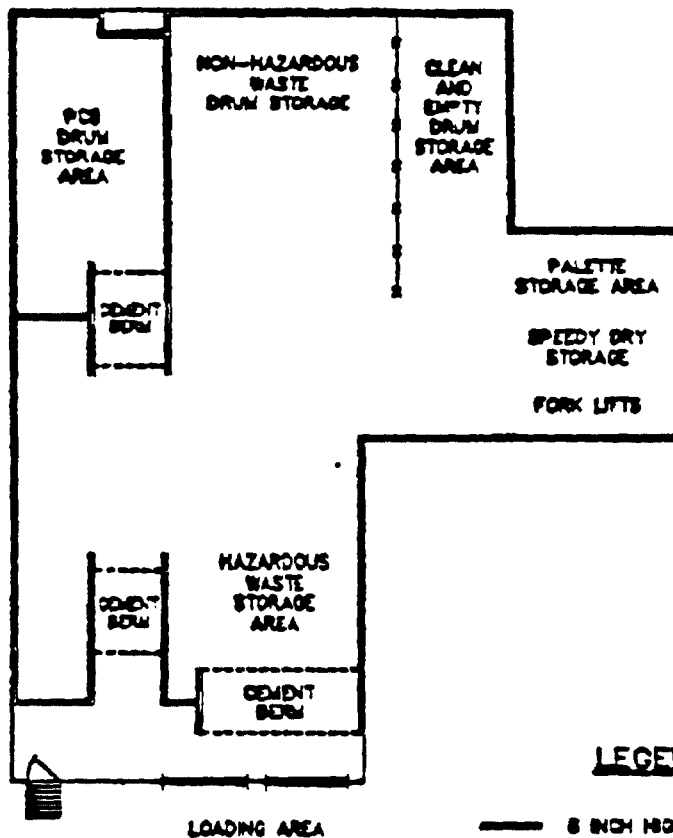
(Signature)

850090083



850090084

2



LEGEND

6 INCH HIGH CONCRETE CURBING

CHAIN

STAIRS

0 20'

<p>FLOOR PLAN HAZARDOUS WASTE STORAGE BUILDING KEARNY, NEW JERSEY</p>			
<p>Prepared for: MONSANTO COMPANY</p>			
<p>ROUX ROUX ASSOCIATES INC. Consulting Engineers and Surveyors & Drafters</p>	<p>Compiled by J.S.P.</p>	<p>Drawn by J.T.</p>	<p>Figure 2</p>
	<p>Prepared by J.S.P.</p>	<p>Scale 1/8" = 1'-0"</p>	
	<p>Project No. 05806J-A05</p>	<p>Revised</p>	
	<p>File No. 05806J-A05</p>		

850090085

APPENDIX 1
Notification of PCB Hazardous Waste

850090086

Monsanto

Monsanto Company
Perryville Avenue
Kearny, New Jersey 07032
Phone (201) 586-0360

November 30, 1990

Chemical Regulation Branch
Office of Toxic Substances TS-798
U.S. Environmental Protection Agency
401 M St., SW
Washington, D.C. 20460

Re: Notification of PCB activity
EPA form 7710-53 (12-89)

This is to notify that Monsanto's Kearny Plant is a PCB generator with an on site storage facility.


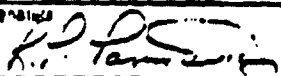
PCB waste at concentrations over 50 PPM is generated from soil cuttings and stored in containers for further disposal.

This facility has an EPA ID# already assigned under RCRA NJD 002444933.

Sincerely,


Ronald P. Panastewicz
Plant Manager

850090087

 United States Environmental Protection Agency Washington, DC 20460		Form Approved OMB No. 8970-0113 Approval Expires 11-31-92
Notification of PCB Activity		
No information on this form may be claimed as TSCA CBI.		
Report to: Chemical Regulation Branch Office of Toxic Substances TS-758 U.S. Environmental Protection Agency 401 M St., SW Washington, DC 20460		For Company Use Only TSCA PCB ID Number
Name of Facility: KEARNY PLANT	Name of Owner of Facility: MONSANTO CHEMICAL CO.	EPA Identification Number (If facility already has an RCRA) KJDO02444933
Facility mailing address (Street or PO Box, City, State, & ZIP Code): Foot of Pennsylvania Ave Kearny, N.J., 07032	Location of Facility (City & State, City, State, & ZIP Code): SAME	
Designation Contact (Name and Title): Constantino J. Barrial Environmental Engineer	Type of PCB Activity (Mark X or appropriate box. See instructions.) <input checked="" type="checkbox"/> A Generation-skippable Storage Facility <input type="checkbox"/> B Storage (Commercial) <input type="checkbox"/> C Transfer <input type="checkbox"/> D Purified Distillate	
Telephone Number (Area Code and Number): (201) 589-0350		
I, the undersigned, Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2515), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.		
Signature: 	Name and Office Title (Type or Print): RONALD P. PANASIEWICZ	Date Signed: 11/29/90
PLANT MANAGER.		
Paperwork Reduction Act Notice The public reporting burden for this collection of information is estimated to average 1.5 hours per response. This estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information to the Chief, Information Policy Branch (PM-223), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked ATTENTION: Desk Officer for EPA.		

EPA Form 7710-12 (10-89)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

BARRIAL C.J.
KEARNY PLANT
FOOT OF PENNSYLVANIA AVENUE
KEARNY, NJ 07032

OFFICE OF
PESTICIDES AND TOXIC
SUBSTANCES

(TS-798)
December 20, 1990
3751

Subject: Notification of PCB Activity

Thank you for filing the Notification of PCB Activity form dated November 29, 1990 for the facility location listed below:

KEARNY PLANT
FOOT OF PENNSYLVANIA AVENUE
KEARNY, NJ 07032

Please be advised that the EPA Identification Number for the above facility is correctly stated on your form as NJD002444933. This is the number you will use for reporting PCB activity.

If you have any questions on the EPA ID, call 301 294-2840. If you have any questions on the interpretation of PCB Waste Handlers rules, call 202 382-3933.

Sincerely,

Tony Barney, Chief
Chemical Regulation Branch

Printed on Recycled Paper

850090089

APPENDIX 2

Design and Capacity of the Storage Facility

850090090

Storage Facility Design

The storage facility was designed in accordance with Toxic Substances Control Act (TSCA) requirements outlined in 40 CFR Part 761.65 (b):

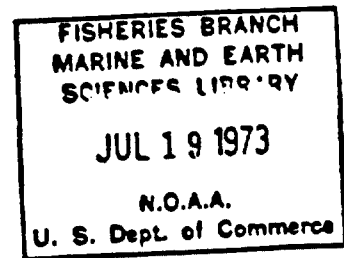
1. The facility has adequate roof and walls to prevent rain water from reaching the stored PCBs and PCB items;
2. The facility has an adequate floor which has continuous curbing with a six inch curb. The curb will provide a containment volume of at least 25 percent of the total internal volume of PCB containers, as described below.
 - a. The storage facility is approximately 544 square feet.
 - b. The containment volume is 272 cubic feet.
 $272 \text{ ft.}^3 = 544 \text{ ft.}^2 \times 0.5 \text{ ft. (curbing)}$
 - c. The containment volume could accommodate leakage of 37 drums.
 $37 \text{ drums} = 272 \text{ ft.}^3 / 7.35 \text{ ft.}^3 \text{ per 55-gallon drum}$
 - d. The containment volume is adequate to provide storage for 148 drums.
37 drums is 25% of 148 drums.
 - e. There will be fewer than 148 drums stored in the facility.
3. There are no drain valves, floor drains, expansion joints, sewer lines, or other openings that would permit liquids to flow from the curbed area;
4. The floor and curb in are constructed of Portland cement concrete;
5. The storage facility is located outside the 100-year flood water elevation which is approximately 9 feet above mean sea level in this area (United States Geological Survey). The elevation of the site generally ranges between approximately 10 and 12 feet above mean sea level and the elevation of the storage facility is an additional 4 feet above the ground surface.

D

850090092

FD
225
N4945

REPORT ON THE
QUALITY OF THE INTERSTATE WATERS
OF THE
LOWER PASSAIC RIVER AND UPPER AND LOWER BAYS
OF NEW YORK HARBOR



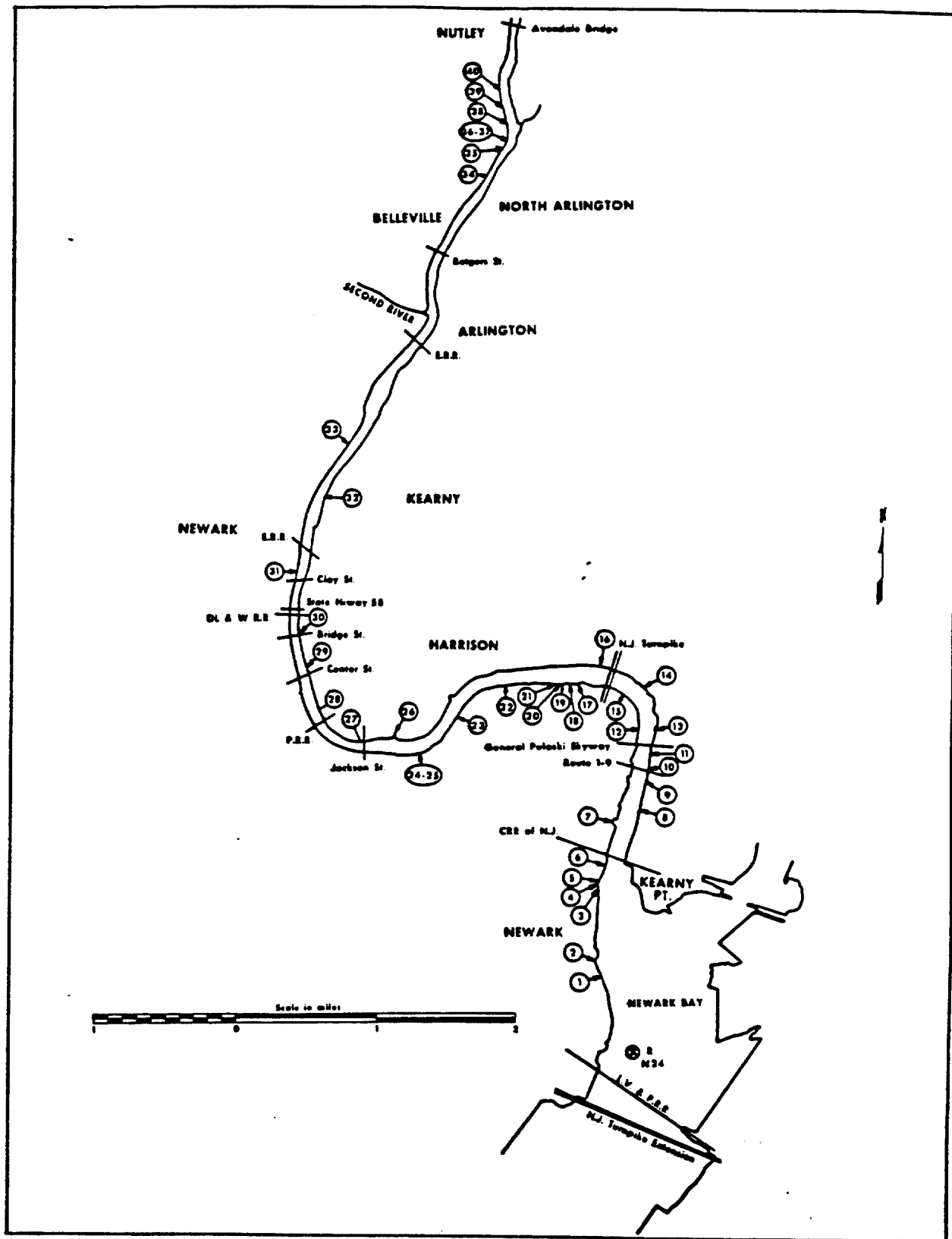
U. S. DEPARTMENT OF THE INTERIOR
U.S. FEDERAL WATER POLLUTION CONTROL ADMINISTRATION.
NORTHEAST REGION.
HUDSON DELAWARE BASINS OFFICE
Edison, New Jersey
November 1969

TC 4047

TABLE 6
DIRTY WASTE DISCHARGES
PASSAIC RIVER

Map Ident. No.	Source Municipality	River ^{2/} Mile	Pipe Size	Est. Flow mgd	Temp. °C	BOD mg/l	Total Suspended Solids mg/l	pH	Total Coliform Org./100 ml	Fecal Coliform Org./100 ml	Remarks
1	Passaic Valley Sewerage Comm. ^{1/} ^{h/} Newark	0.1	undetermined	-	-	-	-	-	-	-	BOD = 261 mg/l yellow color, odor
2	Vulcan Materials ^{1/} ^{h/} Newark	0.6	36", 6", 8"	-	-	-	-	-	-	-	High BOD, pH = 9.6 - 13.6
3	Ashland Chemical Co. ^{h/} Newark	1.1	3" 26"	-	-	-	-	-	-	-	Temp. >70°C Q = 0.05 mgd
4	Revere Smelting & Refining Co. ^{1/} ^{h/} Newark	1.1	Open ditch	-	-	-	-	-	-	-	BOD = 3421 mg/l Ether sol. = 16 mg/l yellow color, pH = 2.7 Q = 0.25 mgd
5	Colanese Chemical Co. ^{1/} ^{h/} Newark	1.1	6"	-	-	-	-	-	-	-	BOD = 3430 mg/l Q = 0.25 mgd
6	Essex Chemical Corp. ^{1/} Newark	1.4	18", 18", 18", 15"	0.1	25.0	nll	352	6.5	32x10 ⁴	28x10 ³	BOD = 480 mg/l, pH = 8.2 ^{h/}
7	Roanoke Ave. Storm Sewer ^{1/} Newark	1.7	60"	1.90	27.0	740	1,230	6.7	75x10 ⁴	31x10 ³	Oil & chemical odor BOD = 382 mg/l, pH = 8.8 Ether sol. = 228 mg/l Phenol = 1.5 ppm ^{h/}
8	Western Electric Kearny	1.9	18", 18", 18", 21" other 10"	18" = .01 18" = slight	25.0	nll	278	6.7	26x10 ³	22x10 ²	
9	Surface Runoff Kearny	2.1	48", 6", 18"	-	-	-	-	-	-	-	
10	Surface Runoff Kearny	2.1	12"	-	-	-	-	-	-	-	
11	Alcan Aluminum Corp. of America ^{1/} Kearny	2.2	4", 2", several other pipes 3"	4" = .01 2" = .02	42.0 44.0	2 7.4	42 60	7.7 7.6	10 10	4 4	
12	Storm Sewer ^{1/} Newark	2.5	18", 18"	-	-	-	-	-	-	-	Cr = 122 ppm Cu = 70 ppm pH = 4.3 ^{h/}
13	Kramer Chemical Co. ^{1/} Kearny	2.5	Flow through 8" hole in bulkhead	0.001	22.0	nll	580	12.0	10	4	
14	Monsanto Chemical Co. Kearny	2.7	27" with V notched weir	0.20	43.5	nll	68	8.8	26x10 ³	71x10 ²	
15	Public Service Essex Gen. Station Newark	2.8	28", very large outlet with gate	very large 28"-very lg.	33.0 38.5	nll 7.4	8 236	7.0 8.7	38x10 ⁴ 21x10 ³	60x10 ² 60x10 ²	
16	Hudson County Mosquito Control Kearny	3.0	12"	large-under pressure	19.0	nll	312		45x10 ³	60	
17	Commercial Solvents ^{h/} Newark	3.1	2"	-	-	-	-	-	-	-	
18	Blanchard Street Storm Sewer ^{1/} ^{h/} Newark	3.2	-	-	-	-	-	-	-	-	pH = 6.4

850090094



Map 1



Printed on Recycled Paper
20% Post Consumer Waste

E

850090096

EXCERPT RE MONSANTO:

PVSC MONTHLY REPORT FOR APRIL, 1961

850090097

May 12, 1961

that the violation is rather a serious one as the material that is leaking is not only highly acid, but contains a large amount of chromium, which is highly toxic.

On April 13, 1961, Mr. Lubetkin received a letter from Mr. Polite. In the letter Mr. Polite stated that the company will forward weekly progress reports.

Apr. 24 Violation - Fiske Brothers Refining Company, 129 Lockwood St., Newark, NJ

A sample of material discharging from the above plant, taken on April 24, 1961, was found to be polluted and containing solvents which registered 5% on an explosimeter.

Chief Engineer Lubetkin wrote a letter to the company on May 5, 1961, requesting a report. On May 8, 1961, the company replied, stating it was their desire to cooperate with the Passaic Valley Sewerage Commissioners, and that the source of pollution would be completely eliminated by the end of the day. (Violation has been reported eliminated as of May 12, 1961.

Apr. 25 Violation Lockwood Street Storm Sewer, Newark, New Jersey

Industrial waste flowing into the Passaic River from the above outlet was discovered on April 25, 1961. Inspector Robert Van Volkenburgh took sample to the P.V.S.C. Labs on April 25 and April 26.

On May 5, 1961, Chief Engineer Lubetkin wrote to Mr. Robert Van Riper of the City of Newark. Mr. Lubetkin told of the polluting material being discharged, and asked Mr. Van Riper for a report on what is causing this pollution and what is being done to correct this situation.

Apr. 3-30 Violation - Marcal Paper Mills, Inc., 1 Market Street, East Paterson, N.J.

This violation of the discharge of industrial waste into the Passaic River is continuous.

Apr. 17-30 Violation - Monsanto Chemical Company, Pennsylvania Ave., So. Kearny, N.J.

On April 17, 1961, Inspector John K. McLaughlin, found a slight turbid liquid from a twenty inch concrete pipe discharging into the Passaic River. pH test paper indicated pH 2-3. The violation was brought to the attention of Mr. Robert M. Erickson, plant manager, who promised quick action to correct this matter. (Weekly report of May 1-5 shows the above violation eliminated.

850090098

F

850090099

EXCERPT RE KEARNY AND MONSANTO:

PVSC ANNUAL REPORT FOR 1972

850090100

ANNUAL REPORT

by

Chief Engineer
S. A. LUBETKIN

to the

**PASSAIC VALLEY
SEWERAGE COMMISSIONERS**

FOR THE YEAR

1972

Violation-Town of Kearny

July, 1972 to December 31, 1972

(M. Colello)

There is a 24" storm pipe in Pennsylvania Ave., Kearny that discharges into the Passaic River at the Monsanto property near Pennsylvania Avenue. The discharge into the river is polluting, some of it attributable to the Monsanto Co. (See Violation-Monsanto). However, some of the pollution comes from Kearny upstream of Monsanto. This is a small flow and difficult to trace.

On July 20, 1972, Mr. Lubetkin wrote to the Town of Kearny, informing them of the polluting discharge, and directing that they locate the source of pollution and have it halted. Mr. Lubetkin also requested a reply. No reply had been received; however, Inspector Colello reports that Supt. McDonald has been working on this but has not yet been able to locate the source of pollution.

On October 3, 1972, Mr. Lubetkin again wrote to the Town of Kearny, but as of the end of the year, no reply had been received.

Violation-Marcas Paper Mills, Inc., East Paterson, N.J.

June 5 to December 31, 1972

(J. Perrapato)

This company takes in Passaic River water, treats it, and then uses it in its industrial process. Its industrial waste is treated and returned to the river. The Commissioners have monitored this waste for many years and, except for occasional accidents, have found the quality of this discharge satisfactory, and no problem occurred in this area.

However, in its treatment of the river water, two things occurred. First, the river water was settled in a lagoon and the silt removed from this water was put back into the river once a week (usually on Sunday) for about one or two hours. Secondly, the treatment of this river water contained filters which were periodically back-washed (about 14 minutes every 1½ hours). This backwash liquid (also river water material) was also returned to the river.

In the past, since this was material from the river containing no industrial waste, and it was being returned to the river, the practice was allowed. In addition, samples of their discharge had been analyzed and found non-polluting, since evidently the samples were taken by the inspector at times when the filter backwash was not in process. On the few times that pollution was detected (samples taken when backwash in operation), it was usually attributed to other causes (such as spills in loading areas), and Marcal was requested to relay certain sewers and reconnect to the sanitary sewers a loading area catch basin. Marcal was cooperative and, to date, did all work requested of them.

Upon review of the Industrial Waste Survey Forms, it was realized that even though the filter backwash liquid and settled silt were materials removed from the river, that with higher river standards the discharge in its concentrated form was definitely polluting, and these discharges would have to be halted.

Violation-Monsanto Company, Pennsylvania Avenue, Kearny, N.J.
January- December 31, 1972 (J. Colella)

Samples taken from 24" and 27" pipes discharging to the river were found to be polluting. On January 27, Mr. Lubetkin wrote to this company, informing them of their pollution and directing them to cease pollution at once.

On February 9, Mr. J. H. Cannan, Plant Manager, wrote to Mr. Lubetkin stating the 24" sewer is a City sewer used by others besides Monsanto. Mr. Lubetkin replied on February 14, that in addition to the 24" sewer which contained polluting material coming from their company, that the 27" sewer discharging into the Passaic River also contained polluting material.

On February 22, a conference was held in Mr. Lubetkin's office, at the request of Monsanto. At the conference, it was pointed out to Monsanto that besides the high C.O.D., there was an exceptionally large amount of ortho phosphate being discharged by Monsanto of 1500 mg /l and 2240 mg/l from the 24" and 27" sewers respectively which could not be accepted. They were directed to prepare a program to halt the C.O.D. pollution and to drastically reduce the phosphate discharge. They agreed to have a report on such a program, together with a time table on implementation, presented to the Commissioners by March 10, 1972.

On March 10, another conference was held with Monsanto's officials. Mr. J. H. Canaan presented a program and time table to eliminate the pollution. Generally speaking, they feel the major pollution is caused by underground leaks and by-passing of a reclamation system. They plan to eliminate the leaks by replacing the old pipes with covered concrete lined trenches to be completed July 1, 1972. Another source of pollution was their discharge #002 from the boiler blow-down, which they would correct or divert to the sanitary sewer by September, 1972.

On June 28. Mr. Hartman of Monsanto submitted a progress report to the Commissioners. The report, complete with photographs, indicated that the program to eliminate leaks from the reclaim system interceptors by replacement of sewers with covered concrete lined trenches was complete; however, a source of phosphate loss was located in a loading area. They expect to find and correct this by October 1, 1972. They also expect to install equipment for dust collection on the loading facility, as this may be a significant source of phosphates to the sewer (Completion target date is January 1, 1973).

They also claimed that extensive sampling had shown that the source of the C.O.D. in the Pennsylvania Avenue Storm Sewer was not their #002 boiler blow-down, but originated upstream from them. This was checked and confirmed by the PVSC and the Town of Kearny was notified of the C.O.D. pollution (See Kearny).

850090103

Violation-Monsanto Company (continued)

On September 27, the Monsanto Co., submitted its quarterly progress report in which they stated:

1. Completed its program to eliminate leaks from reclaim system interceptors by replacement with covered concrete lined trenches, however, a source of phosphate loss was located in a loading area. Correction of this source will be completed by October 1, 1972.
2. Installation of dust collectors on S.T.P. loading facilities, scheduled to be completed January 1, 1973, is on target. Engineering is complete, funds have been appropriated, construction permit obtained, and equipment on order.

They admitted that there had been (as of the end of September) essentially no reduction in concentration of phosphates discharged in their effluent, but volume has been significantly reduced due to reduced flow. They cannot explain the relative constant concentration except to assume a quantity of phosphate in the soil above the water table that slowly dissolves after each rain, entering the water table, thence the sewer.

During the last quarter of 1972, analysis of samples indicated that a high concentration of phosphates remained (1100 to 1400 mg/l). On December 28, 1972, Monsanto submitted its quarterly report in which it stated all scheduled work had been completed except the following:

1. The dust collectors which had been scheduled for January 1, 1973, were rescheduled for February 9, 1973.
2. Verify results of program, Target date March 1, 1973.

The report also states that careful monitoring indicates that quantity of phosphates in discharge had decreased by 40% and the flow rate to the river had decreased 25%. They are involved in a testing program to establish the magnitude of the phosphates in the ground so as to estimate the rate of reduction. This should be completed April 1, 1973.

EXCERPT RE KEARNY AND MONSANTO:

PVSC ANNUAL REPORT FOR 1973

850090105

ANNUAL REPORT

by

Chief Engineer
S. A. LUBETKIN

to the

**PASSAIC VALLEY
SEWERAGE COMMISSIONERS**

FOR THE YEAR

1973

Violations and Eliminations- Marcal Paper Mills (con't.)

started to repipe the backwash effluent back to the settling basins

Since this matter is being handled by the Federal E.P.A., the PVSC would no longer enforce its order, but would continue to report progress (or lack of it) as reports are obtained from E.P.A.

Inspector Perrapato reported that as of February 20, 1973, Marcal had completed its piping and installed a recycling pump so that all the filter backwash water was then recycled back to the filter tanks and backwash water was no longer going to the Passaic River, thus eliminating that source of pollution.

The only remaining item is that of the silt removed from the lagoons.

Violation and Elimination - Borough of Maywood
February 5-7, 1973 (J. Perrapato)

On February 5, 1973, an overflow from the Stepan Chemical Co. was detected. This resulted from a clogged Maywood sewer located along Route 17 in Maywood.

The Stepan Chemical Co. shut down its operation at 4 P.M. on February 5, 1973.

At 10:30 A.M. February 6, the line was cleared and Stepan Chemical Co. went back into operation.

Violation and Elimination - Monsanto Company, Pennsylvania
Avenue, Kearny, N.J.
January 1972 to October 25, 1973 (J. Colello)

Samples taken from 24" and 27" pipes discharging to the river were found to be polluting. On January 27, Mr. Lubetkin wrote to this company, informing them of their pollution and directing them to cease pollution at once.

On February 9, Mr. J. H. Cannan, Plant Manager, wrote to Mr. Lubetkin stating the 24" sewer was a city sewer used by others besides Monsanto. Mr. Lubetkin replied on February 14, that in addition to the 24" sewer which contained polluting material coming from their company, that the 27" sewer discharging into the Passaic River also contained polluting material.

850090107

Violation and Elimination - Monsanto Company (con't.)

On February 22, a conference was held in Mr. Lubetkin's office, at the request of Monsanto. At the conference, it was pointed out to Monsanto that besides the high C.O.D., there was an exceptionally large amount of ortho phosphate being discharged by Monsanto of 1500 mg/l and 2240 mg/l from the 24" and 27" sewers respectively which could not be accepted. They were directed to prepare a program to halt the C.O.D. pollution and to drastically reduce the phosphate discharge. They agreed to have a report on such a program, together with a time table on implementation, presented to the Commissioners by March 10, 1972.

On March 10, another conference was held with Monsanto's officials. Mr. J. H. Canaan presented a program and time table to eliminate the pollution. Generally speaking, they felt the major pollution was caused by underground leaks and by-passing of a reclamation system. They planned to eliminate the leaks by replacing the old pipes with covered concrete lined trenches to be completed July 1, 1972. Another source of pollution was their discharge #002 from the boiler blowdown, which they would correct or divert to the sanitary sewer by September 1972. They also agreed to submit quarterly progress reports (which they subsequently did and which are on file at the PVSC office).

On June 28, Mr. Hartmann of Monsanto submitted a progress report to the Commissioners. The report, complete with photographs, indicated that the program to eliminate leaks from the reclaim system interceptors by replacement of sewers with covered concrete lined trenches was complete; however, a source of phosphate loss was located in a loading area. They expected to find and correct this by October 1, 1972. Subsequent progress report dated December 28, 1972 indicated this had been corrected.

The March 26, 1973 report indicated the heretofore unrecognized source of phosphate to the ground was identified, and capital authorization was obtained to install recovery equipment to eliminate the source. Expected operation was early in second half of 1973. The fifth quarterly report dated July 16, 1973 stated that the recovery unit was being started up.

The original report stated they would verify the accuracy of flow measurements and analytical data. This was completed and confirmed in their first quarterly report (dated June 23, 1972).

850090108

Violation & Elimination - Monsanto Company (con't).

The installation of dust collection equipment on the STP loading facility (a significant known source of phosphate into the sewer) was originally scheduled for completion on January 1, 1973. The project was delayed because of late delivery of fans. The July 16, 1973 report stated that they were then installed and operating. Dusting from these loading facilities had been eliminated and a five year state operating permit had been obtained. A third unit was being operated on a temporary permit pending completion of a modification to improve performance on small trucks.

They reported that the flow rate in the plant storm sewer continued to decrease with a 25% decrease from January 1972 to July 1973. The phosphate level in the discharge was slowly decreasing. A study by them on leaching rates indicated that it will take approximately two years of rainfall to reduce the concentration of phosphates in the soil enough to reduce the effluent discharge to 50 mg/l (their report dated March 26, 1973).

On August 23, 1973, Messrs. Lubetkin, Lazzio and Colello met on the site with Mr. Hartmann to review the pollution problem. Mr. Hartmann stated that they did not have any water going to the river and he believed that they had the pollution under control. He stated that the material going to the river was only the residue that was leaching from the ground with the ground water. He also stated that since they were not using the outlets anymore, he is recommending that they be sealed, thus eliminating the discharge and the pollution once and for all.

It was pointed out to him that the ground water with the phosphate was also getting into the Kearny Pennsylvania Storm Sewer and he would have to have that infiltration inflow sealed to halt that pollution. He said they would also work on that problem.

On September 25, 1973, Mr. Canaan, Plant Manager, and Mr. R.F. Hartmann, Maintenance and Engineering Superintendent, met with Mr. Lubetkin and Mr. Moller of the PVSC, and reviewed the situation. They agreed that they would abandon the plant sewer system and plug it so that no flow would come from Monsanto to the River. They would also disconnect their connections to the 10" line running along Pennsylvania Avenue. They also agreed to bear the cost of a TV scan of the City sewer past their plant after the City cleaned the sewer, so that a TV camera could be put through it. This was confirmed in a letter dated September 26, 1973. Dates were established in a letter dated September 28, 1973. The main storm sewer from their property was to be sealed and re-

Violation & Elimination - Monsanto Company (con't.)

moved by November 30, 1973.

On October 17, 1973, Monsanto informed the U.S.E.P.A. that it would abandon and seal its #001 outlet to the Passaic River before December 31, 1973, and it was therefore withdrawing its application for discharge permit as of January 1, 1974.

Mr. Lubetkin wrote to the Town of Kearny on October 15, informing them of Monsanto's agreement concerning the Town sewer, and Mr. Lubetkin requested that the Town clean the sewer so that televising could be accomplished,

On October 25, the Town Clerk, Mr. S. Aitken, informed the PVSC that the matter had been turned over to the Superintendent of Public Works who would give this job high priority.

Also on October 25, 1973, the Monsanto Company completely sealed its outlet to the Passaic River, thus it is being removed from the violation list.

However since the Kearny, Pennsylvania Avenue sewer still contains a significant amount of phosphate, Kearny is being placed on the violation list until their sewer is cleaned, an internal inspection made and the sewer sealed from the polluting infiltration. (See Violation - Town of Kearny pg. 106).

Violation and Elimination - National Standard Company
Athenia Steel Division, 714 Clifton Avenue, Clifton, New
Jersey.

August 14, 1972 to August 22, 1973. (F. Wendt)

On July 31, 1972, Mr. F. Sudol of Clifton, called to report polluting discharges from this company into Weasel Brook. The report was given to Inspector Wendt. Mr. Wendt took a sample on August 1, which was not found to be polluting. On the following week (August 7-12 inclusive), Mr. Wendt reported that none of the four outlets from this company were flowing. On Sunday, August 13, Mr. Wendt reported a small clear flow from one outlet.

However, on August 14, Mr. Wendt found that three outlets were flowing and he took samples. Analysis showed the samples were polluting. On August 16, Mr. Lubetkin wrote to National Standard, informing them of the pollution and directing that they cease polluting at once. On August 21, Mr. J.A. Johnson of National Standard replied that they had temporarily diverted the flow from entering the brook,

Violation-Town of Kearny-Pennsylvania Avenue Storm Sewer
January 1972 to December 31, 1973 (J. Colello)

The 24 inch Pennsylvania Avenue Storm Sewer and the 10 inch sewer adjacent to it are both discharging liquid to the Passaic River containing significant amounts of phosphate.

Since the Monsanto Company, nearby, was a manufacturer of this material, they were held responsible. In the time from January 1972, to October 1973, the Monsanto Company did many things to halt their pollution, including complete recycling of water that formerly went to the Passaic River and sealing off outlets to the storm sewer.

However, the ground is considered saturated with phosphate, and the ground water, with considerable phosphate in solution, continues to enter the storm sewer thence the Passaic River.

The Monsanto Company has agreed to finance a program of TV inspection of the Kearny storm sewer and thence a program to seal it from infiltration coming from the Monsanto plant if the Town of Kearny would clean the storm sewer so that the TV equipment can be put in the sewer.

On October 15, 1973, Mr. Lubetkin wrote to the Town of Kearny informing them of Monsanto's agreement and Mr. Lubetkin requested that the Town do the necessary cleaning so the pollution can be eliminated.

On October 25, 1973, Mr. S. Aitken, of the Town of Kearny, informed the PVSC that the matter had been turned over to the Superintendent of Public Works who would give this job high priority.

Nothing had been done concerning this as of the end of 1973.

Violation-Marcas Paper Mills, Inc., Elmwood Park, N.J.
June 5, 1972 to December 31, 1973 (J. Perrapato)

All pollution from this company to the Passaic River from their industrial wastes and filter back wash water was eliminated February 20, 1973, by their recycling this water (see details in Section II, Violation & Eliminations, page 80 of this Annual Report)

The only problem that remains is the disposal of silt from the settling lagoon where the river water is settled prior to filtration. The silt is presently (once a week, usually on Sunday) pumped back into the Passaic River by the company (as does the PVWC). This is considered polluting and the company had been ordered by PVSC, on June 9, 1972 and USEPA, on June 21, 1972, to halt this practice. Since USEPA is involved the PVSC is not moving against Marcas, but is awaiting results from USEPA, however, since it is in the PVSC's district we will continue to report progress, if any.

EXCERPT RE KEARNY:

PVSC ANNUAL REPORT FOR 1974

850090112

ANNUAL REPORT

by

Chief Engineer

S. A. LUBETKIN

to the

PASSAIC VALLEY

SEWERAGE COMMISSIONERS

FOR OPERATIONS DURING

THE YEAR

1974

Violation - Town of Kearny, Pennsylvania Avenue Storm
Sewer

January 1972 to December 31, 1974

(J. Colello)

The 24 inch Pennsylvania Avenue storm sewer and the 10-inch sewer, adjacent to it, were discharging liquid to the Passaic River, containing significant amounts of phosphate.

Since the Monsanto Company, nearby, was a manufacturer of this material, they were held responsible. In the time from January 1972 to October 1973, the Monsanto Company did many things to halt their pollution, including complete recycling of water that formerly went to the Passaic River and sealing off outlets to the storm sewer. However, the ground is considered saturated with phosphate and the ground water, with considerable phosphate in solution, continues to enter the storm sewer, thence the Passaic River.

The Monsanto Company had agreed to finance a program of TV inspection of the Kearny storm sewer, and thence a program to seal it from infiltration coming from the Monsanto plant, if the Town of Kearny would clean the storm sewer so that the TV equipment can be put in the sewer.

On October 15, 1973, Mr. Lubetkin wrote to the Town of Kearny informing them of Monsanto's agreement and Mr. Lubetkin requested that the Town do the necessary cleaning so the pollution can be eliminated.

On October 25, 1973, Mr. S. Aitkin of the Town of Kearny informed the PVSC that the matter had been turned over to the Superintendent of Public Works who would give this job high priority.

Since nothing further had been heard from Kearny on this matter, on February 27, 1974 Mr. Lubetkin again wrote to it reminding them of the situation and requesting information as to when they could clean the storm sewer.

Inspector Colello reported that on March 13, 1974, the Sewer Department of Kearny tried to clean the sewer but couldn't get past a blockage. He reported that Mr. Delaney, Foreman, stated that a manhole would have to be built, due to the long run, in order to complete the cleaning.

On April 4, Mr. Lubetkin wrote to Kearny requesting information as to the time schedule on construction of the manhole. On April 9, Mr. J. Kurszwicz, Public Works Superintendent, replied, stating a time schedule would be forwarded as soon as the equipment was available.

850090114

Violation - Town of Kearny - Pennsylvania Ave. Storm Sewer (con't.)

On May 7, the Kearny crew discovered that the storm sewer contained a hard substance that significantly obstructed it. A piece was chipped out and analyzed and was found to be at least 60% calcium triphosphate. The Foreman, Mr. McAleavy informed the PVSC inspector that he would contact Monsanto about clearing the line of this material.

On October 29, 1974, Mr. Lubetkin wrote to Kearny, summarizing the problem, and stating that it was the PVSC understanding that Kearny would contact Monsanto about clearing this line of this material, so that the remainder of the work could proceed. Mr. Lubetkin requested an up-to-date report on this matter.

On November 12, 1974, Mr. J. McAleavy, Foreman of the Sewer Department, wrote to PVSC wherein he stated that it had been determined that the calcium triphosphate did not come from the Monsanto Company but from Newark Gypsum where it was used in the manufacture of plaster board. He stated that Newark Gypsum was no longer located in Kearny. He also stated that the blockage was on the property of Monsanto, and Kearny would have to dig up the sewer to correct it. He stated that he met with the River Inspector and since he felt the pollution was minimal that the matter should be left as is. On November 21, Mr. Lubetkin wrote to Mr. McAleavy stating that if Newark Gypsum was responsible for the blockage of a Kearny storm sewer, then they should be located and be made to pay for the removal of the blockage. PVSC did not think it proper to ignore a problem if the cause of the problem had relocated. If Newark Gypsum could not be located, or if they had gone out of business, then the situation would have to be re-evaluated. As of the end of 1974 no reply had been received from Kearny.

Violation - Mallinckrodt Chemical Co., Washine Division,
Main Street, Lodi, N. J.

June 17 - December 31, 1974

(J. Perrapato)

While looking for the source of the coliform count in Saddle River, Inspector Perrapato noted a sewage odor behind Mallinckrodt Chemical Co. Building #2, which backs on Millbank Brook, a tributary of Saddle River. There were no visible pipes, but a few puddles in the area had the odor. Inspector Perrapato contacted the yard foreman and was told that there was a septic tank underground at that location.

Inspector Perrapato then notified the plant manager (Mr. J. Bauer) that the material seeping into Millbank Brook was a violation. Mr. Bauer contacted the Barry Kruger Company to empty the tank. A sample was taken to the PVSC laboratory and was found to be highly polluting.

EXCERPT RE KEARNY:

PVSC ANNUAL REPORT FOR 1975

850090116

Violation - Town of Kearny, Pennsylvania Avenue Storm
Sewer

January 1972 to December 31, 1975

(J. Colello)

The 24 inch Pennsylvania Avenue storm sewer and the 10-inch sewer, adjacent to it, were discharging liquid to the Passaic River, containing significant amounts of phosphate.

Since the Monsanto Company, nearby, was a manufacturer of this material, they were held responsible. In the time from January 1972 to October 1973, the Monsanto Company did many things to halt their pollution, including complete recycling of water that formerly went to the Passaic River and sealing off outlets to the storm sewer. However, the ground was considered saturated with phosphate and the ground water, with considerable phosphate in solution, continued to enter the storm sewer, thence the Passaic River.

The Monsanto Company had agreed to finance a program of TV inspection of the Kearny storm sewer, and thence a program to seal it from infiltration coming from the Monsanto plant, if the Town of Kearny would clean the storm sewer so that the TV equipment can be put in the sewer.

On October 15, 1973, Mr. Lubetkin wrote to the Town of Kearny informing them of Monsanto's agreement and Mr. Lubetkin requested that the Town do the necessary cleaning so the pollution can be eliminated.

On October 25, 1973, Mr. S. Aitkin of the Town of Kearny informed the PVSC that the matter had been turned over to the Superintendent of Public Works who would give this job high priority.

Since nothing further had been heard from Kearny on this matter, on February 27, 1974 Mr. Lubetkin again wrote to it reminding them of the situation and requesting information as to when they could clean the storm sewer.

Inspector Colello reported that on March 13, 1974, the Sewer Department of Kearny tried to clean the sewer but couldn't get past a blockage. He reported that Mr. Delaney, Foreman, stated that a manhole would have to be built, due to the long run, in order to complete the cleaning.

On April 4, Mr. Lubetkin wrote to Kearny requesting information as to the time schedule on construction of the manhole. On April 9, Mr. J. Kurszwicz, Public Works Superintendent, replied, stating a time schedule would be forwarded as soon as the equipment was available.

850090117

Violation - Town of Kearny - Pennsylvania Ave. Storm Sewer (con't.)

On May 7, the Kearny crew discovered that the storm sewer contained a hard substance that significantly obstructed it. A piece was chipped out and analyzed and was found to be at least 60% calcium triphosphate. The Foreman, Mr. McAleavy informed the PVSC inspector that he would contact Monsanto about clearing the line of this material.

On October 29, 1974, Mr. Lubetkin wrote to Kearny, summarizing the problem, and stating that it was the PVSC understanding that Kearny would contact Monsanto about clearing this line of this material, so that the remainder of the work could proceed. Mr. Lubetkin requested an up-to-date report on this matter.

On November 12, 1974, Mr. J. McAleavy, Foreman of the Sewer Department, wrote to PVSC wherein he stated that it had been determined that the calcium triphosphate did not come from the Monsanto Company but from Newark Gypsum where it was used in the manufacture of plaster board. He stated that Newark Gypsum was no longer located in Kearny. He also stated that the blockage was on the property of Monsanto, and Kearny would have to dig up the sewer to correct it. He stated that he met with the River Inspector and since he felt the pollution was minimal that the matter should be left as is. On November 21, Mr. Lubetkin wrote to Mr. McAleavy stating that if Newark Gypsum was responsible for the blockage of a Kearny storm sewer, then they should be located and be made to pay for the removal of the blockage. PVSC did not think it proper to ignore a problem if the cause of the problem had relocated. If Newark Gypsum could not be located, or if they had gone out of business, then the situation would have to be re-evaluated.

Nothing further had been done on this problem during 1975. Since the pollution was orthophosphate, and since the PVSC did not think that this was damaging to these waters at that location, PVSC did not take action against Kearny; However, PVSC feels that Kearny should clear the sewer so as to maintain a proper storm outlet.

EXCERPT RE KEARNY:

PVSC ANNUAL REPORT FOR 1976

Violation - Town of Kearny, Pennsylvania Avenue Storm
Sewer (J. Colello &
January 1972 to December 31, 1976 J. McLaughlin)

The 24 inch Pennsylvania Avenue storm sewer and the 12-inch sewer, adjacent to it, were discharging liquid to the Passaic River, containing significant amounts of phosphate.

Since the Monsanto Company, nearby, was a manufacturer of this material, they were held responsible. In the time from January 1972 to October 1973, the Monsanto Company did many things to halt their pollution, including complete recycling of water that formerly went to the Passaic River and sealing off outlets to the storm sewer. However, the ground was considered saturated with phosphate and the ground water, with considerable phosphate in solution, continued to enter the storm sewer, thence the Passaic River.

The Monsanto Company had agreed to finance a program of TV inspection of the Kearny storm sewer, and thence a program to seal it from infiltration coming from the Monsanto plant, if the Town of Kearny would clean the storm sewer so that the TV equipment can be put in the sewer.

On October 15, 1973, Mr. Lubetkin wrote to the Town of Kearny informing them of Monsanto's agreement and Mr. Lubetkin requested that the Town do the necessary cleaning so the pollution can be eliminated.

On October 25, 1973, Mr. S. Aitkin of the Town of Kearny informed the PVSC that the matter had been turned over to the Superintendent of Public Works who would give this job high priority.

Since nothing further had been heard from Kearny on this matter, on February 27, 1974 Mr. Lubetkin again wrote to it reminding them of the situation and requesting information as to when they could clean the storm sewer.

Inspector Colello reported that on March 13, 1974, the Sewer Department of Kearny tried to clean the sewer but couldn't get past a blockage. He reported that Mr. Delaney, Foreman, stated that a manhole would have to be built, due to the long run, in order to complete the cleaning.

Violation - Town of Kearny - Pennsylvania Ave. Storm Sewer (con't.)

On April 4, Mr. Lubetkin wrote to Kearny requesting information as to the time schedule on construction of the manhole. On April 9, Mr. J. Kurszwicz, Public Works Superintendent, replied, stating a time schedule would be forwarded as soon as the equipment was available.

On May 7, the Kearny crew discovered that the storm sewer contained a hard substance that significantly obstructed it. A piece was chipped out and analyzed and was found to be at least 60% calcium triphosphate. The Foreman, Mr. McAleavy informed the PVSC inspector that he would contact Monsanto about clearing the line of this material.

On October 29, 1974, Mr. Lubetkin wrote to Kearny, summarizing the problem, and stating that it was the PVSC understanding that Kearny would contact Monsanto about clearing this line of this material, so that the remainder of the work could proceed. Mr. Lubetkin requested an up-to-date report on this matter.

On November 12, 1974, Mr. J. McAleavy, Foreman of the Sewer Department, wrote to PVSC wherein he stated that it had been determined that the calcium triphosphate did not come from the Monsanto Company but from Newark Gypsum where it was used in the manufacture of plaster board. He stated that Newark Gypsum was no longer located in Kearny. He also stated that the blockage was on the property of Monsanto, and Kearny would have to dig up the sewer to correct it. He stated that he met with the River Inspector and since he felt the pollution was minimal that the matter should be left as is. On November 21, Mr. Lubetkin wrote to Mr. McAleavy stating that if Newark Gypsum was responsible for the blockage of a Kearny storm sewer, then they should be located and be made to pay for the removal of the blockage. PVSC did not think it proper to ignore a problem if the cause of the problem had relocated. If Newark Gypsum could not be located, or if they had gone out of business, then the situation would have to be re-evaluated.

Nothing further had been done on this problem during 1975 or 1976. Since the pollution was orthophosphate, and since the PVSC did not think that this was damaging to these waters at that location, PVSC did not take action against Kearny; However, PVSC feels that Kearny should clear the sewer so as to maintain a proper storm outlet.

850090121

EXCERPT RE KEARNY:

PVSC MONTHLY REPORT FOR OCTOBER, 1977

850090122

Violation - Borough of Hawthorne - Lincoln Street Ditch (cont.)

When laboratory analysis indicated that the sample taken on October 6 was highly polluting (COD 107 mg/l, turbidity 84 JTU, TOC 36 mg/l, and fecal coliform 3,400,000), on October 12th Mr. Lembo and his work crew uncovered a manhole that had been paved over with asphalt. When the cover was removed, an inspection revealed a leak in the sanitary line which allowed sanitary waste to flow, through an underdrain into the storm sewer. The underdrain had been installed to channel ground water away from the sanitary sewer and into the storm sewer.

On October 18, excavation at Washington Street had started and repairs were completed when Inspector Parr returned on October 19. Mr. William Cole, Foreman, informed him that this section of the underdrain had been sealed off from the storm sewer and connected to the sanitary line.

In spite of this, samples taken on October 27 and 31 were still polluting, indicating that at least one more source of pollution was present.

Violation - Town of Kearny - Pennsylvania Avenue Storm Sewer

January 1972 - October 31, 1977 (J. McLaughlin)

See the PVSC's 1976 Annual Report, page 196.

On June 1, 1977, the Kearny Sewer Department attempted to clean the line with a jet spray machine, but they were unable to dislodge the calcium phosphate build-up. The Foreman stated that they would have to dig up the line and he would discuss the matter with the Town Engineer.

Since no progress was made toward eliminating this violation, the matter was referred to PVSC's Chief Counsel, who wrote to the Town of Kearny on September 29 and requested an abatement schedule.

Violation - Town of Lyndhurst - Lake Avenue Storm Sewer

March 15 - October 31, 1977 (W. Fleming)

PVSC inspectors routinely sample various storm sewer discharges as part of its monitoring program. On March 15, 1977, Inspector Fleming sampled the Lake Avenue Storm Sewer. When informed on March 16 that the sample was polluting, he and Supt. Cuccinello met with Mr. Peter Mesmer, Assistant Supt., Lyndhurst Sewer Department, to review the problem. They checked several manholes from Second Avenue to Park Avenue along Lake Avenue, but could not find the source of the pollution.

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850090124

Confidential
Draft Interim Report

MONSANTO CHEMICAL COMPANY
Pennsylvania Avenue
Kearny, New Jersey

Prepared by IntraSearch Inc.
5351 South Roslyn Street
Englewood, Colorado 80111

April, 1993

850090125

MONSANTO CHEMICAL COMPANY
Pennsylvania Avenue
Kearny, New Jersey

Initial Conditions (Pre-1940)

The Monsanto Chemical Company site is located along a broad meander of the Passaic River, Hudson County, New Jersey. The site was originally an area of low-lying, marshy terrain. Solid fill material has been periodically distributed over the area to sufficiently build a permanent land base above the water table. Successive surface grading and accumulation of solid fill material provides the subbase for the current site. The origin and composition of the solid fill material is unknown.

Description of Photographic Analysis

The following descriptions accompanying the detailed maps enclosed in this report reflect the development activity at various time intervals. The specific years selected for interpretation were designated by Maxus Energy Corporation.

- Pre-1940 The significant episodes of solid fill accumulations and subsequent grading of material was well established prior to 1940. The entire Passaic River channel was well defined and conforms to the present day configuration. The General Pulaski Skyway and Conrail right-of-ways and associated bridges, etc., have been constructed. The Meadow Yards of the Central Railroad of New Jersey is well established. The entire vicinity surrounding the site has been developed as an industrial area and includes large warehouses and storage facilities.
- 12-22-43 The site during this time period is dominated by the Meadow Yards of the Central Railroad of New Jersey. The surface of the site has been extensively graded and leveled to allow construction of railroad tracks, switches and side tracks. The elevated Conrail railroad tracking has been previously constructed and bounds the site to the north. At least ten side tracks parallel each other and extend the entire length of the site from the Meadow Railroad Yards. A large warehouse and smaller building located in the southeast portion of the site along Pennsylvania Avenue are the only buildings observed within the

(Continued)

site. Several buildings are located south of Pennsylvania Avenue. Approximate seven lengthy sequences of railroad cars occupy the side tracks within the site. No recent solid fill material is observed. Three small localized spots of an unidentified light material or disturbed ground can be observed in close proximity to railroad cars and tracking. A barge or loading platform can be recognized along the Passaic River. A localized area of sediments, probably exposed at low tide, can be observed off-shore in the Passaic River. No other sediment discharges from the site into the river are recognized.

06-07-54

The site during this time period is predominately the same as the preceding paragraph. The series of parallel side tracks/switches and associated railway activity remain in heavy use. Numerous sequences of railroad cars are observed on most side tracks. The two major warehouses and two smaller buildings defined earlier still remain in the eastern portion of the site. An additional building or shed has been constructed in the northwest portion of the site. Some surface disturbance is associated with the dead-end of the railroad side tracks. Barges associated with construction are being loaded/unloaded along the Passaic River. Some stacked material or debris is observed in the western portion of the site. A shallow depression has been trenched along the base of the elevated Conrail tracking along the northern portion of site. The direction of drainage of fluids is uncertain, but possibly extends southward into the Passaic River.

An area of light colored material, possibly recently disturbed fill material, is evident near the Conrail tracking near the river. No discharge of sediments is apparent at this location. The construction of concrete forms along the Passaic River is recognized during this time. The backfill of solid fill material is also present. Numerous barges associated with this construction activity

(Continued)

are observed. A drainage located in the southern edge of the site is apparently discharging small amounts of sediments into the Passaic River. These sediments, however, do not permeate into the main channel of the river and are restricted to shallow water.

05-07-62

During this time period a complex facility was constructed over much of the site. The majority of the earlier described railroad side tracks and switches have been removed. The remaining railroad side tracks are limited to the eastern third of the site. The warehouses built in earlier years are still present. The new construction consists of a complex chemical facility with additional building, storage tanks, pipelines and parking/transport areas. A wire fence restricts access into the site from Pennsylvania Avenue. A shallow collection pond has been excavated in the western portion of the site. A rectangular containment area with three vertical tanks is located immediately west of the main chemical facility. A moderately sized pile of light-colored material has been stockpiled along the western margin of the site, south of the elevated Conrail tracking. The origin of this ungraded material is unknown. No significant excavation on the site is recognized. A pipeline or conveyor extends from a large vertical tower adjacent to the main building of the facility. This pipeline extends to a tower and loading platform along the Passaic River. Small amounts of stacked material of unknown composition exist in localized areas.

Three subtle sediment discharges along the Passaic River are evident. The northernmost two locations may be attributed to sediments exposed at low tide. The southernmost location appears to be associated with the small drainage described in the preceding paragraph. In as much as the discharge occurs in shallow water, the subtle plume may reflect river sediments exposed at low tide.

MONSANTO CHEMICAL COMPANY

Pennsylvania Avenue
Kearny, New Jersey
Page 4

04-06-68 The chemical facility during this time period increased in size and storage capacity. The addition of numerous tanks and pipelines confirms increased development. The previously described light colored stockpile in the western portion of the site appears to have darkened to a medium tone. This tonal alteration may be attributed to weathering or subtle moisture/vegetation growth. A rectangular retention pond, located to the west of the main facility is partially filled with a dark liquid or material. Possible leaching of this liquid from retention area may be reflected by dark tonal anomalies. These anomalies are located in close proximity to the retention area. The dark tonal coloration may indicate vegetation growth and/or semi-liquid accumulations in shallow surface depressions. The accumulation of some light-colored material is evident along the elevated railway tracking bounding the site to the north. This material may be material recently excavated and stockpiled from the construction of the containment pond. The previous described containment area has been expanded into an "L" shape, with the addition of another vertical tank. Four tanks now occupy this area.

Several areas of sediment discharge are evident along the Passaic River. The occurrence of these sediment plumes may be attributed to recent regrading of shoreline fill material. The largest and most notable of these occurrences appears in the southern area of site along the river. All of these sediment discharges reveal an elongated appearance upstream, reflecting tidal movement. No significant discharge from the facility into the river is recognized.

04-11-74 Expansion of chemical facility evident by increased number of tanks, pipelines, etc. Construction of vertical tanks surrounded by containment barrier located immediately west of facility. Removal of retention area and ponded liquid described in previous paragraph. Dark areas of possible seepage still visible as described earlier. Removal

MONSANTO CHEMICAL COMPANY

Pennsylvania Avenue

Kearny, New Jersey

Page 5

(Continued)

of medium-colored stockpile located in western portion of site. Pitted and uneven grading of west portion of site. Some shallow pits or low spots appear dark in color and may contain standing liquid or vegetation. Unidentified stack material observed along most of northern boundary of site. Two smaller areas of sediment discharge can be observed. The southernmost location is consistent with sediment discharge documented in previous paragraphs.

03-22-79

The chemical facility is primarily the same as described in the preceding paragraph. The most notable addition is the construction of a large square containment area in the western portion of the site. This square containment area replaces the previous described "L" shaped area. The four tanks have been replaced by a single tank. This large vertical tank occupies the southeast quadrant of this new area. The other three quadrants are empty. Stacked material is observed to the west of this construction. Stacked material of unknown composition also occupies a linear area along the northern boundary of the site. No apparent discharge of sediment or liquid run-off is evident from the aerial photography.

03-06-87

The chemical plant configuration during this time has remained approximately the same as described in earlier paragraphs. An additional vertical tank has been constructed in the northeast quadrant of the rectangular containment area in the west portion of the site. The stacked material has been removed from the area west of the containment area and this area has been cleaned up and graded. A large accumulation of unknown stacked material is observed northeast of the main facility. An elongated plume of sediment discharge is evident along the Passaic River in the southwest portion of site. This plume extends from a small drainage and angles downstream due to tidal currents. The source of this plume is not clearly evident.

850090130

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850090131

NJOEP INSPECTION FORM

Report Prepared for:

Generator ☒

Transporter ☐

HWM (TSD) facility ☒

Monsanto

Monsanto Industrial Chemicals Co.
Kearny Plant
Pennsylvania Avenue
Kearny, New Jersey 07032
201 589-0350

Jerry E. Boller
Chief Chemist

Facility Information

Name: Monsanto Co.

Address: Pennsylvania Ave
Kearny, N.J.

Lot: 49, 50, 49 Block: 284, 284, 285

County: Hudson

Phone: 601 589-0350

EPA ID#: NT 000 2444932

Date of Inspection: 9/3/83

Participating Personnel

State or EPA personnel: Bob Dante
NJOEP

Facility personnel: Jerry E. Boller
chief chemist

Report Prepared by Name: Bob Dante

Region: North

Telephone #: (201) 548-3669

Reviewed by: J. Boller

Date of Review: 9/24/83

TIME IN _____

TIME OUT _____

TIME IN: 10:00 AM

TIME OUT: 1:00

FACILITY NAME: Monsanto Co.

ADDRESS: Pennsylvania Ave

Keeney, N.J.

COUNTY: Hudson

EPA ID #: NJ0000444933

DATE OF INSPECTION: 8/3/83

PHOTOS TAKEN

☐

YES

☒

NO

If yes, how many? _____

SAMPLES TAKEN

☐

YES

☒

NO

NUMBER OF SAMPLES _____

NJDEP ID # _____

MANIFESTS REVIEWED

☒

YES

☐

NO

Number of manifests in compliance 36

Number of manifests not in compliance 0

9 shipments in 1981

13 shipments in 1982

17 shipments in 1983

List manifest document numbers of those manifests not in compliance.

Summary of Findings

Facility Description and Operations

The facility makes sodium triphosphates. This is a detergent builder (granules) found in laundry soaps. The facility also makes phosphate salts, oil additives and bubble baths.

The facility ^{new} generates the following hazardous wastes but none on site at this time: waste phosphate acids, Alkyl phenols, oil additives, Cerjanic (Alkyl phenols) and spent catalysts.

The facility has wrote the D.E.P. to have their classification changed from a TSD to a generator (see attached). The following violations were noted on site 7idk-9.8 all and 7idk 10.4 (b).

Describe the activities that result in the generation of hazardous waste.

1. Generated from the manufacturing of ethoxylated Alkylphenols (bubble bath)
2. This is product which has to be reworked before it can be sold. The material comes from floor sweepings and making of an off spec batch.

Identify the hazardous waste located on site, and estimate the approximate quantities of each. (Identify Waste Codes)

1. Sterex filter cakes 36, 55 gallon steel drums (non haz) manifested
2. Sodium Tripoly phosphate, 140, 55 gallon steel drums non hazardous material to be reworked.

CONFIDENTIAL - RECOMMENDATIONS

TO: John Berg

FROM: Bob Dante

DATE: 8-9-83

SUBJECT: Monsanto inspection Report

The facility appears not to be acting as a TSDF since no hazardous wastes were on site at the time of the inspection.

The facility should be issued an N.O.V. for 10.4(b) even though this is a TSDF violation. The drum storage area contains only drums on pallets, there is no containment system for leaks or spills. Mr. Bollen stated that Monsanto is making plans to install a containment system. The drums of off spec detergent were in bad shape some of the detergent was leaking from the drums into the gravel.

Also some raw ^{material} solvents were stored in this area if a leak broke out the solvents would run into the ground. An N.O.V. should not be issued for not having an closure plan.

GENERATOR INSPECTION CHECKLIST

		YES	NO	N/A
7:26-8.5	<u>Hazardous waste determination</u>			
	(a) Did the generator test its waste to determine whether it is hazardous?	✓	—	—
	Is the waste hazardous?	✓	—	—
	Is the generator determining that its waste exhibits a hazardous waste characteristic(s) based on its <u>knowledge of the material(s) or processes used?</u>	✓	—	—
	Has hazardous waste been shipped off site since November 19, 1980?	✓	—	—
	If yes, how many shipments, off site, have been made and describe the approximate size of an average shipment made on a monthly basis. If facility is a small quantity generator, please explain. <i>36 shipments, 3,800 lbs/per month</i>			
7:26-7.4(a)1	Does the generator have an EPA ID #?	✓	—	—
7:26-7.4(a)4	Does each manifest have the following information? Please circle the elements missing and obtain a copy of the incomplete manifests. (List those manifests that are deficient)	✓	—	—
7:26-7.4(a)4i	The generator's name, address and phone number?	✓	—	—
7:26-7.4(a)4ii	The generator's EPA ID number?	✓	—	—
7:26-7.4(a)4iii	The transporter(s) name, address and phone number?	✓	—	—
7:26-7.4(a)4iv	The transporter(s) EPA ID number?	✓	—	—
7:26-7.4(a)4v	The name, address and phone number of the designated TSD facility?	✓	—	—
7:26-7.4(a)4vi	The TSDF's EPA ID number?	✓	—	—
7:26-7.4(a)4vii	The name, type and quantity of hazardous waste being shipped, including such particulars as may be required regarding same?	✓	—	—

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-7.4(a)4viii	Special handling instructions and any other information required on the form to be shipped by the generator?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5	Before allowing the manifested waste to leave the generator's property, did the generator:			
7:26-7.4(a)5i	Sign the manifest certification by hand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5ii	Obtain the handwritten signature of the initial transporter and date of acceptance on the manifest?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5iii	Retain one copy and forward one copy to the state of origin and one copy to the state of destination?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(a)5iv	Give remaining copies of the manifest form to the transporter?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(f)1	Has the generator maintained facility records since November 19, 1980? (Manifest(s), exception report(s) and waste analysis)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(h)1	Has the generator received signed copies of portion B (from the TSD facility) of all manifests for waste shipped off site more than 35 days ago?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.4(h)2	If not,			
	1. Did the generator contact the hauler and/or the owner or operator of the TSDF and the NJDEP at 609-292-9877 to inform the NJDEP of the situation, and	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	2. Have exception reports been submitted to the Department covering any of these shipments made more than 45 days ago?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Before transporting or offering hazardous waste for transportation off site, does the generator?			
7:26-7.2(a)	Conspicuously label appropriate manifest numbers on all hazardous waste containers that are intended for shipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-7.2(b)	Insure that all containers used to transport hazardous waste off site are in conformance with applicable DOT regulations (i.e., 49 CFR 171 - 49 CFR 179)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

YES NO N/A

7:26-9.3

Accumulation time

How is waste accumulated on site?

- ☒ Containers
- ☐ Tanks (complete HWMF checklist)
 - ☐ Aboveground ☐ Below ground
- ☐ Surface impoundments (complete HWMF checklist)
- ☐ Piles (complete HWMF checklist)

7:26-9.3(a)3

Is each container clearly dated with each period of accumulation so as to be visible for inspection?

✓ — —

Is waste accumulated for more than 90 days?

— ✓ —

If yes, complete HWMF checklist. - *is filled out*

STOP HERE IF THE HAZARDOUS WASTE MANAGEMENT FACILITY (TSD) CHECKLIST IS FILLED OUT.

SHORT TERM ACCUMULATION STANDARDS (FOR GENERATORS WHO ACCUMULATE WASTE IN CONTAINERS FOR 90 DAYS OR LESS)

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.4	<u>Containers</u>			
	What type of containers are used for storage. Describe the size, type and quantity and nature of waste (e.g., 12 fifty five gallon drums of waste acetone).			
7:26-9.4(d)3	Do the containers appear to be in good condition, not in danger of leaking?	—	—	—
	If no, please describe the type, condition and number of leaking or corroded containers. Be detailed and specific.			
7:26-9.4(d)4i	Are all containers securely closed except those in use?	—	—	—
7:26-9.4(d)4iii	Do containers appear to be properly handled or stored in a manner which will minimize the risk of the container rupturing or leaking?	—	—	—
7:26-9.4(d)4iv	Are containerized hazardous waste segregated in storage by waste type?	—	—	—
7:26-9.4(d)4v	Is every container arranged so that its identification label is visible?	—	—	—
7:26-9.4(d)5	Is the storage area inspected at least daily?	—	—	—
7:26-9.4(d)6	Are containers holding ignitable and reactive wastes located at least 50 feet (15 meters) from the facility's property line?	—	—	—
7:26-11.2	<u>Tanks</u>			
	What are the approximate number and size of tanks containing hazardous waste?	—	—	—
	Identify the waste treated/stored in each tank.			

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
	<u>General Operating Requirements</u>			
7:26-11.2(a)2	Are the tanks maintained so that there is no evidence of past, present, or risk of future leaks? If no, please explain.	—	—	—
	Are there leaking tanks?	—	—	—
7:26-11.2(a)2	Are all hazardous wastes or treatment reagents being placed in tanks compatible with the tank material so that there is no danger of ruptures, corrosion, leaks or other failures?	—	—	—
7:26-11.2(3)	Do uncovered tanks have at least 2 feet of freeboard or an adequate containment structure?	—	—	—
7:26-11.2(a)4	If waste is continuously fed into a tank, is the tank equipped with a means to stop the inflow from the tank, e.g., bypass system to a standby tank?	—	—	—
7:26-11.2(c)	<u>Inspections</u> Is the tank(s) inspected each operating day for:			
	1. Discharge control equipment	—	—	—
	2. Monitoring equipment	—	—	—
	3. Level of waste in tank	—	—	—
	4. Construction of materials of the tank	—	—	—
	5. Are the tanks and surrounding areas (e.g., dike) inspected weekly for leaks, corrosion or other failures?	—	—	—
	Are there underground tanks?	—	—	—
	If yes, how many and can they be entered for inspection?	—	—	—
7:26-11.2(e)	Are ignitable or reactive wastes stored in a manner which protects them from a source of ignition or reaction? If no, please explain.	—	—	—

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-11.2(f)	Does it appear that incompatible wastes are being stored separate from each other?	—	—	—
7:26-9.4(g)	<u>Personnel training</u>			
	Have facility personnel successfully completed a program of classroom instruction or on-the-job training within 6 months of having been employed?	—	—	—
7:26-9.4(g)2	Is the program directed by a person trained in hazardous waste management procedures and does it include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed?	—	—	—
7:26-9.4(g)5	If yes, have facility personnel taken part in an annual review of training?	—	—	—
	Is there written documentation of the following:	—	—	—
7:26-9.4(g)6i	Job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job?	—	—	—
7:26-9.4(g)6ii	A written job description for each position related to hazardous waste management?	—	—	—
7:26-9.4(g)6iii	A written description of the type and amount of both introductory and continuing training given to personnel in jobs related to hazardous waste management?	—	—	—
7:26-9.4(g)6iv	Documentation of actual training or experience received by personnel?	—	—	—
7:26-9.4(g)7	Are training records kept on all employees for at least 3 years?	—	—	—
7:26-9.4(g)8	Are semi-annual drills conducted involving all employees and appropriate local authorities to test emergency response capabilities at the facility in accordance with the contingency plan and emergency procedures development pursuant to NJAC 7:26-9.7?	—	—	—
7:26-9.6	<u>Preparedness and prevention</u>			
	Does the facility comply with preparedness and prevention requirements including main- taining:			

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.6(b)1	An internal communications or alarm system?	—	—	—
7:26-9.6(b)2	A telephone or other device to summon emergency assistance from local authorities?	—	—	—
7:26-9.6(b)3	Portable fire equipment, spill control equipment, and decontamination equipment?	—	—	—
7:26-9.6(b)4	Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems?	—	—	—
7:26-9.6(c)	Is equipment tested and maintained?	—	—	—
7:26-9.6(d)1	Is there immediate access to communications or alarm systems during handling of hazardous waste?	—	—	—
7:26-9.6(e)	Adequate aisle space to allow unobstructed movement of personnel fire protection equipment, spill control equipment and decontamination equipment?	—	—	—
	If no, please explain.			
	In your opinion, do the types of waste on site require all of the above procedures, or are some not required?	—	—	—
	Explain.			
7:26-9.6(f)	Has the facility made the following arrangements, as appropriate for the type of waste handled on site:	—	—	—
7:26-9.6(f)1	Familiarize police, fire departments and emergency response teams with the layout of the facility and hazardous waste handled?	—	—	—
7:26-9.6(f)2	Where more than one police and fire department might respond to an emergency, is there an agreement designating primary emergency authority to a specific police or fire department, and agreements with any others to provide support to the primary emergency authority?	—	—	—

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.6(f)3	Agreements with emergency response contractors, and equipment suppliers?	—	—	—
7:26-9.6(f)4	Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or discharges at the facility?	—	—	—
7:26-9.6(f)5	Arrangements with local fire departments to inspect the facility on a regular basis with at least two (2) inspections annually?	—	—	—
7:26-9.7	<u>Contingency plan and emergency procedures</u>			
7:26-9.7(a)	Does the facility have a written contingency plan for emergency procedures designed to deal with fires, explosions, hazards to human health or environment, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water?	—	—	—
7:26-9.7(b)	Are provisions of the plan carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment?	—	—	—
7:26-9.7(c)	Does the contingency plan describe the actions facility personnel shall take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility?	—	—	—
7:26-9.7(d)	Did the owner or operator prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112 or 151 or a Discharge Prevention, Containment and Countermeasure (DPCP) Plan in accordance with N.J.A.C. 7:1E-4.1 et seq.?	—	—	—
	If yes, did the owner or operator amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this section?	—	—	—
7:26-9.7(e)	Does the plan describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services?	—	—	—

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.7(f)	Does the plan list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator and is this list kept up to date? Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates.	—	—	—
7:26-9.7(g)	Does the plan include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required? Is the list kept up-to-date? In addition, does the plan include the location and a physical description of each item on the list, and a brief outline of its capabilities?	—	—	—
7:26-9.7(h)	Does the plan include an evacuation procedure for facility personnel where there is a possibility that evacuation could be necessary? Does this plan describe signal(s) to be used to begin evacuation, evacuation routes, and alternative evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires)?	—	—	—
7:26-9.7(i)	Is a copy of the contingency plan and all revisions to the plan:			
	1. Maintained at the facility; and	—	—	—
	2. Has the contingency plan been submitted to local authorities (police fire departments, emergency response teams)?	—	—	—

TRANSPORTER INSPECTION

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
	Does the transporter carry hazardous waste? If yes, explain.	—	—	—
7:26-7.5(c)1	Has the transporter obtained a hazardous waste collector/hauler license from the NJDEP? License #:	—	—	—
7:26-7.5(d)1	Does the transporter have an EPA identification number?	—	—	—
7:26-3.4(h)	Do the vehicle(s) have the NJSWA registration number in letters and numbers at least three (3) inches in height?	—	—	—
7:26-3.4(h)	Is the capacity of the vehicle marked on both sides of the vehicle in letters and numbers at least three (3) inches in height?	—	—	—
7:26-3.4(h)	Is the current NJSWA registration certificate in the vehicle?	—	—	—
7:26-3.2(b)	Does the license plate number and registration number on the certificate correspond to the vehicle's license plate number and the registration number displayed on the vehicle?	—	—	—
7:26-7.5(d)	Does the transporter have in each registered vehicle a current list of all federal and state agencies to be notified in the event of a discharge of hazardous waste during transportation?	—	—	—
	How many vehicles were inspected?			
7:26-7.5(d)12	Have the drivers received any instruction or training to do with the handling of hazardous waste?	—	—	—
7:26-7.5(d)15	Is the transporter equipped with emergency equipment in conformance with subpart H of 49 CFR 393?	—	—	—

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
	Has the transporter ever had an unauthorized discharge of hazardous waste during transportation?	—	—	—
	If yes, did the transporter:			
7:26-7.5(f)3i	Give notice, if required by 49 CFR 171.15 to the National Response Center?	—	—	—
7:26-7.5(f)3ii	Report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials, Transportation Bureau, Department of Transportation, Washington, DC 20590?	—	—	—
7:26-7.5(f)3iii	Contact the Department at 609-292-5560 or 609-292-7172?	—	—	—

MANIFESTS

7:26-7.5(d)5	Does the transporter have a manifest form to accompany the waste shipment?	—	—	—
	Manifest document number: _____			
7:26-7.3(a)1	If the shipment originated from a site in New Jersey and is destined for another site in New Jersey, is the manifest form one supplied by the NJDEP?	—	—	—
7:26-7.3(a)2	If the shipment originated from a site in another state and is destined for a TSDF in New Jersey, is the manifest form one supplied by the NJDEP or one approved for use in New Jersey by the Department?	—	—	—
7:26-7.3(a)3	If the shipment originated from a site in New Jersey and is destined for a TSDF in another state, is the manifest form one supplied by the NJDEP or one approved for use by the Department?	—	—	—
7:26-7.5(d)11	If the hauler was unable to deliver a manifested load to the designated facility, did they contact the generator and gain further instructions from them?	—	—	—
	If yes, cite generator name and manifest number involved.			

HAZARDOUS WASTE FACILITY STANDARDS

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.4(b)	<u>Waste Analysis</u>			
7:26-9.4(b)1i	Is there a detailed chemical and physical analysis of a representative sample of the waste(s) or each waste? (At a minimum, this analysis must contain all the information necessary for proper treatment, storage or disposal of the waste.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(b)1iii	Does the character of the waste handled at the facility change from day to day, week to week, etc., thus requiring frequent testing? Check only one: Waste characteristics vary All waste(s) are basically the same <input checked="" type="checkbox"/> Company treats all waste(s) as hazardous <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(b)2	Is there a written waste analysis plan at the facility? Does it contain:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(2)i	Parameters for which each hazardous waste stream will be analyzed including constituents listed in NJAC 7:26-8.16 and the rationale for the selection of these parameters?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(b)2ii	The test methods which will be used to test for these parameters?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(b)2iii	The sampling method which will be used to obtain a representative sample of the waste to be analyzed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(b)2iv	The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up-to-date?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(b)2v	For off-site facilities, the waste analysis that hazardous waste generators have agreed to supply?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-9.4(b)2vii	Procedures which will be used to identify changes in waste stream characteristics?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-9.4(b)3	Did the owner or operator submit the waste analysis plan to the Department? If yes, when was the plan submitted?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
	Does hazardous waste come to this facility from an outside source? (e.g., another generator)	—	<input checked="" type="checkbox"/>	—
	If yes, list the name(s) of generators.			
7:26-9.4(b)4	If waste comes from an outside source, are there procedures in the waste analysis plan to insure that waste received conforms to the accompanying manifest?	—	—	<input checked="" type="checkbox"/>
	Does the plan describe:			
7:26-9.4(b)4i	The procedures which will be used to determine the identity of each shipment of waste managed at the facility?	—	—	<input checked="" type="checkbox"/>
7:26-9.4(b)4ii	The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling?	—	—	<input checked="" type="checkbox"/>
7:26-9.4(h)	<u>Security</u>			
	Does the facility have:			
7:26-9.4(h)1i	A 24 hour surveillance system which continuously monitors and controls entry onto the active portion of the facility?	<input checked="" type="checkbox"/>	—	—
7:26-9.4(h)1ii	An artificial or natural barrier, which completely surrounds the active portion of the facility; and a means to control entry, at all times, through the gates or other entrances to the active portion of the facility?	<input checked="" type="checkbox"/>	—	—
7:26-9.4(h)3	Are there "Danger-Unauthorized Personnel Keep Out" signs posted at each entrance to the facility?	<input checked="" type="checkbox"/>	—	—
	If no, explain what measures are taken for security.			

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.4(f)	<u>General Inspection Requirements</u>			
7:26-9.4(f)1	Does the owner or operator inspect the facility for malfunctions and deterioration, operator errors and discharges which may be causing, or may lead to: <i>visual and written monthly</i>			
7:26-9.4(f)1i	Discharge of hazardous waste constituents to the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(f)1ii	A threat to human health?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(f)3	Has the owner or operator developed, and does the owner or operator follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that are utilized for the prevention, detection or response to environmental or human health?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(f)3i	Did the owner or operator submit the written inspection schedule to the department?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	If yes, when was it submitted?			
7:26-9.4(f)3iii	Is the written inspection schedule kept at the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(f)3iv	Does the schedule identify the types of problems to be looked for during the inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(f)3v	Does the schedule include the frequency of inspection, based upon the rate of possible deterioration of the equipment and the probability of an environmental, or human health incident if the deterioration or malfunctions or any operator error goes undetected between inspections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(f)5	Is there evidence that problems reported in the inspection log have been remedied?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(f)6	Does the owner/operator record inspections in a log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are these records kept for at least three (3) years from the date of inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
	Does the records include the date, and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial action?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(g)	<u>Personnel training</u>			
	Have facility personnel successfully completed a program of classroom instruction or on-the-job training within 6 months of having been employed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(g)2	Is the program directed by a person trained in hazardous waste management procedures and does it include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(g)5	If yes, have facility personnel taken part in an annual review of training?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is there written documentation of the following:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(g)5i	Job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(g)5ii	A written job description for each position related to hazardous waste management?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(g)5iii	A written description of the type and amount of both introductory and continuing training given to personnel in jobs related to hazardous waste management?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(g)5iv	Documentation of actual training or experience received by personnel?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(g)7	Are training records kept on all employees for at least three (3) years?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(g)8	Are semi-annual drills conducted involving all employees and appropriate local authorities to test emergency response capabilities at the facility in accordance with the contingency plan and emergency procedures development pursuant to NJAC 7:26-9.7?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		YES	NO	N/A
7:26-9.6	<u>Preparedness and prevention</u>			
	Does the facility comply with preparedness and prevention requirements including maintaining:			
7:26-9.6(b)1	An internal communications or alarm system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(b)2	A telephone or other device to summon emergency assistance from local authorities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(b)3	Portable fire equipment, spill control equipment, and decontamination equipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(b)4	Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(c)	Is equipment tested and maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(d)1	Is there immediate access to communications or alarm systems during handling of hazardous waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(e)	Adequate aisle space to allow unobstructed movement of personnel fire protection equipment, spill control equipment and decontamination equipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If no, please explain. <i>All drums can be inspected</i>			
	In your opinion, do the types of waste on site require all of the above procedures, or are some not required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Explain.			
7:26-9.6(f)	Has the facility made the following arrangements, as appropriate for the type of waste handled on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(f)1	Familiarize police, fire departments and emergency response teams with the layout of the facility and hazardous waste handled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		YES	NO	N/A
7:26-9.6(f)2	Where more than one police and fire department might respond to an emergency, is there an agreement designating primary emergency authority to a specific police or fire department, and agreements with any others to provide support to the primary emergency authority?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(f)3	Agreements with emergency response contractors, and equipment suppliers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(f)4	Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or discharges at the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.6(f)5	Arrangements with local fire departments to inspect the facility on a regular basis with at least two (2) inspections annually?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.7	<u>Contingency plan and emergency procedures</u>			
7:26-9.7(a)	Does the facility have a written contingency plan for emergency procedures designed to deal with fires, explosions, hazards to human health or environment, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.7(b)	Are provisions of the plan carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.7(c)	Does the contingency plan describe the actions facility personnel shall take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.7(d)	Did the owner or operator prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112 or 151 or a Discharge Prevention, Containment and Countermeasure (DPCC) Plan in accordance with N.J.A.C. 7:1E-4.1 et seq.?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If yes, did the owner or operator amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this section?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 7:26-9.7(e) Does the plan describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services? ☒ ☐ ☐
- 7:26-9.7(f) Does the plan list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator and is this list kept up-to-date? Where more than one person is listed, one shall be named as primary emergency coordinator and others shall assume responsibility as alternates. ☒ ☐ ☐
- 7:26-9.7(g) Does the plan include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required? Is the list kept up-to-date? In addition, does the plan include the location and a physical description of each item on the list, and a brief outline of its capabilities? ☒ ☐ ☐
- 7:26-9.7(h) Does the plan include an evacuation procedure for facility personnel where there is a possibility that evacuation could be necessary? Does this plan describe signal(s) to be used to begin evacuation, evacuation routes, and alternative evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires)? ☒ ☐ ☐
- 7:26-9.7(i) Is a copy of the contingency plan and all revisions to the plan:
1. Maintained at the facility; and ☒ ☐ ☐
 2. Has the contingency plan been submitted to local authorities (police, fire departments, emergency response teams)? ☒ ☐ ☐
- 7:26-9.8 Closure plan
- 7:26-9.8(c) Does the facility have a written closure plan? ☐ ☒ ☐
- Does the owner/operator keep a written copy of the closure plan and all revisions to the plan at the facility? ☐ ☒ ☐
- If yes, does the plan include:

		YES	NO	N/A
7:26-9.8(e)1i	A description of how and when the facility will be partially closed (if applicable) and ultimately closed?	—	✓	—
7:26-9.8(e)1ii	The maximum extent of the operation which will be open during the life of the facility?	—	✓	—
7:26-9.8(e)2	An estimate of the maximum inventory of wastes in storage or in treatment at any given time during the life of the facility?	—	✓	—
7:26-9.8(e)3	A description of the steps needed to decontaminate facility equipment during closure?	—	✓	—
7:26-9.8(e)4	A schedule for final closure including the anticipated date when the wastes will no longer be received, the date when completion of final closure is anticipated, and intervening milestone dates which will allow tracking of the progress of closure?	—	✓	—
	<u>Post Closure Plan</u>			
7:26-9.9(g)	Does the facility have a written post-closure plan kept at the facility?	—	—	✓
	If yes, does the plan:			
7:26-9.9(i)	Identify the activities which will be carried on after closure and the frequency of these activities?	—	—	✓
7:26-9.9(i)1	Include a description of the planned ground-water monitoring activities and frequencies at which they will be performed?	—	—	✓
7:26-9.9(i)2	Include a description of the planned maintenance activities, and frequency at which they will be performed, to insure the following:	—	—	✓
7:26-9.9(i)2i	The integrity of the cap and final cover or other containment structures where applicable?	—	—	✓
7:26-9.9(i)2ii	Describe the function of the facility monitoring equipment?	—	—	✓
7:26-9.9(i)3	Include the name, address and phone number of a person or office to contact about the disposal facility during the post-closure period?	—	—	✓
	Does the owner/operator have a written estimate of the cost of post-closure for the facility?	—	—	—
	If yes, what is it?			

Please circle all appropriate activities and answer questions on indicated pages for all activities circled.

<u>Storage</u>	<u>Treatment</u>	<u>Disposal</u>
Container - pg. 9	Tank - pg. 12	Landfill - pg. 18
Tank, above ground - pg. 12	Surface Impoundments - pg. 15	
Tank, below ground - pg. 12	Incineration - pg. 20	Surface Impoundments - pg. 15
Surface Impoundments - pg. 15	Thermal Treatment - pg. 23	Other _____
Waste Piles - pg. 17		
Other _____	Chemical, Physical and Biological Treatment - pg. 25	
	Other _____	

YES NO N/A

7:26-9.4(d)

Containers

What type of containers are used for storage?

Describe the size, type, quantity and nature of wastes (e.g., 12 fifty-five gallon drums of waste acetone)

55 gallon steel drums . 36 drums sterax filter cakes non hazardous material
55 gallon steel drums sodium Tripoly phosphate 140 in number non hazardous material.

7:26-10.4(b)

Is there a containment system for spills, leaks and precipitation?

Is yes, describe the containment system.

gravel base - plans to put in waste storage pad.

7:26-9.4(d)1i

Do the containers appear to be of sturdy leak-proof construction of adequate wall thickness, weld, hinge and seam strength, and of sufficient material strength to withstand side and bottom shock, while filled, without impairment of the container's ability to contain hazardous waste?

If no, explain.

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.4(d)1ii	Are the lids, caps, hinges or other closure devices of sufficient strength that when closed, they will withstand dropping, over-turning or other shock without impairment of the container's ability to contain hazardous waste? If no, explain.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(d)2	Do the containers appear to be in good condition, not in danger of leaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(d)2	If not, please describe the type, condition and number of leaking or corroded containers. Be detailed and specific.			
7:26-9.4(d)4i	Are all containers securely closed, except those in use, so that there is no escape of hazardous waste or its vapors? If no, explain.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(d)4iii	Do containers appear to be properly opened, handled or stored in a manner which will minimize the risk of the container rupturing or leaking? If no, explain.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(d)iv	Are containerized hazardous wastes segregated in storage by waste type?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(d)v	Are containerized hazardous wastes arranged so that their identification label is visible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(d)3	Are hazardous wastes stored in containers made of compatible materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.4(d)5	Does the owner/operator inspect the container storage area at least daily, looking for leaks and for deterioration caused by corrosion or other factors?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(d)6	Are containers holding ignitable and reactive waste located at least 50 feet (15 meters) away from the facility's property line?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-9.4(d)7i	Are incompatible wastes, or incompatible wastes and materials placed in the same container? If yes, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-9.4(d)7ii	Are hazardous wastes placed in unwashed containers that previously held incompatible wastes? If yes, explain.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(d)iii	Are containers holding hazardous waste that are incompatible with any waste or other materials stored nearby in other containers, open tanks, or surface impoundments separated from the other materials or protected from them by means of a dike, berm, wall or other device?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(e)li	Are ignitable, reactive or incompatible wastes protected from sources of ignition or reaction? If no, explain.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7:26-9.4(e)lii	Does the owner/operator confine smoking and open flames to specially designated locations when ignitable or reactive wastes are being handled? If no, explain.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.4(e)liii	Does the owner/operator conspicuously place "No Smoking" signs whenever there is a hazard from ignitable or reactive waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If the treatment, storage or disposal of ignitable or reactive waste, and the mixture of incompatible wastes and materials, conducted so that it does not:			
7:26-9.4(e)2i	Generate extreme heat or pressure, fire or explosion, or violent reaction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(e)2ii	Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(e)2iii	Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(e)2iv	Damage the structural integrity of the device or facility containing the waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-9.4(e)2v	Threaten human health or the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:26-11.2	<u>Tanks</u>			
	What are the approximate number and size of tanks containing hazardous waste?			
	Identify the waste treated/stored in each tank.			
	<u>General Operating Requirements</u>			
7:26-11.2(a)2	Are the tanks maintained so that there is no evidence of past, present, or risk of future leaks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	If no, please explain.			
	Are there leaking tanks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-11.2(a)2	Are all hazardous wastes or treatment reagents being placed in tanks compatible with the tank material so that there is no danger of ruptures, corrosion, leaks or other failures?	___	___	___
7:26-11.2(3)	Do uncovered tanks have at least 2 feet of freeboard or an adequate containment structure?	___	___	___
7:26-11.2(a)4	If waste is continuously fed into a tank, is the tank equipped with a means to stop the inflow from the tank, e.g., bypass system to a standby tank?	___	___	___
7:26-11.2(c)	<u>Inspections</u>			
	Is the tank(s) inspected each operating day for:			
	1. Discharge control equipment	___	___	___
	2. Monitoring equipment	___	___	___
	3. Level of waste in tank	___	___	___
	4. Construction of materials of the tank	___	___	___
	5. Are the tanks and surrounding areas (e.g., dike) inspected weekly for leaks, corrosion or other failures?	___	___	___
	Are there underground tanks?	___	___	___
	If yes, how many and can they be entered for inspection?	___	___	___
7:26-11.2(e)	Are ignitable or reactive wastes stored in a manner which protects them from a source of ignition or reaction?	___	___	___
	If no, please explain.			
7:26-11.2(f)	Does it appear that incompatible wastes are being stored separate from each other?	___	___	___
7:14A-6	<u>Groundwater monitoring</u>			
	(Applies only to: surface impoundments, landfills, land disposal facilities.)			

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:14A-6.2			
Does the owner/operator have a groundwater monitoring plan approved by the Department and capable of determining the facility's impact on the quality of groundwater?	—	—	—

If no, please explain.

How many monitoring wells has the facility installed?

What is the depth to groundwater?

How many deep monitoring wells are on site?
(Indicate depth of monitoring wells.)

How many shallow monitoring wells are on site?
(Indicate depth of monitoring wells.)

7:14A-6.3(a)	Is the groundwater monitoring system capable of yielding groundwater samples for analysis?	—	—	—
--------------	--	---	---	---

If no, please explain.

7:14A-6.3(a)1	Are monitoring wells installed hydraulically upgradient?	—	—	—
---------------	--	---	---	---

If yes, specify how many and the depth of each.

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:14A-6.3(a)2	How many monitoring wells are installed hydraulically down gradient? If yes, specify how many and the depth of each.	___	___	___
7:14A-6.4(a)	Does the owner/operator have a groundwater sampling and analysis plan? If no, please explain.	___	___	___
7:14A-6.4(a)	Does the plan include procedures and techniques for: 1. Sample collection 2. Sample preservation and shipment 3. Analytical procedures 4. Chain of custody	___ ___ ___ ___	___ ___ ___ ___	___ ___ ___ ___
7:26-11.3	<u>Surface Impoundments</u> Describe the design and operating features of the surface impoundment to prevent groundwater contamination (e.g., liner leachate collection system). Give the approximate size of surface impoundments (gallons or cubic feet). Please specify the types of waste stored and treated.			
7:26-11.3(a)	Is there at least 2 feet of freeboard in the impoundment?	___	___	___

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-11.3(b)	Do all earthen dikes have a protective cover to preserve their structural integrity?	—	—	—
	If yes, please specify the type of covering.			
7:26-9.4(b)1	Does the owner/operator have a detailed chemical and physical analysis of a representative sample of the waste in the impoundment?	—	—	—
7:26-9.4(c)2	Does the owner/operator place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility?	—	—	—
7:26-11.3(d)	Does the owner or operator inspect:			
7:26-11.3(d)1	The freeboard level at least once each operating day to ensure compliance with subsection 11.3(a)?	—	—	—
7:26-11.3(d)2	The surface impoundment, including dikes and vegetation surrounding the dike, at least once a week to detect any leaks, deterioration or failures in the impoundment?	—	—	—
7:26-11.3(f)	Is ignitable or reactive waste placed in the surface impoundment?	—	—	—
7:26-11.3(f)1	If yes, is the waste treated, rendered, or mixed before or immediately after placement in the impoundment?	—	—	—
7:26-11.3(f)1i	Does the resulting waste, mixture, or dissolution of material no longer meet the definition of ignitable or reactive waste?	—	—	—
7:26-11.3(f)1ii	Is the waste treated, rendered or mixed so that it does not:			
7:26-9.4(e)2i	Generate extreme heat or pressure, fire or explosion, or violent reaction?	—	—	—
7:26-9.4(e)2ii	Produce uncontrolled toxic mists, fumes, dusts, of gases in sufficient quantities to threaten human health?	—	—	—
7:26-9.4(e)2iii	Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosion?	—	—	—

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.4(e)2iv	Damage the structural integrity of the device or facility containing the waste?	___	___	___
7:26-9.4(e)2v	Threaten human health or the environment?	___	___	___
7:26-11.3(f)2	Is the surface impoundment used solely for emergencies?	___	___	___
7:26-11.3(g)	—Are incompatible wastes, or incompatible wastes and materials placed in the same surface impoundment?	___	___	___
	If yes, is the waste managed so that it does not:			
7:26-9.4(e)2i	Generate extreme heat or pressure, fire or explosion, or violent reaction?	___	___	___
7:26-9.4(e)2ii	Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health?	___	___	___
7:26-9.4(e)2iii	Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk or fire or explosion?	___	___	___
7:26-9.4(e)2iv	Damage the structural integrity of the device or facility containing the waste?	___	___	___
7:26-9.4(e)2v	Threaten human health or the environment?	___	___	___
	<u>Waste Piles</u>			
	How many waste piles are on-site and approximately how large are they? (Please indicate size and height and types of wastes in piles.)			
	Is the waste pile protected from wind erosion?	___	___	___
	a) Does it appear to need such protection?	___	___	___
	b) Explain what type of protection does exist.			
7:26-9.3(a)5i	Is the waste pile larger than 200 cubic yards?	___	___	___

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-9.3(a)5ii	Is the pile placed on an impermeable base that is compatible with the waste?	___	___	___

If no, explain.

7:26-9.3(a)5iii	Is run-on diverted away from the pile?	___	___	___
-----------------	--	-----	-----	-----

7:26-9.3(a)5iv	Is leachate and run-off from the pile collected and managed as a hazardous waste?	___	___	___
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7:26-11.4 Landfills

Identify the types of waste and size of the landfill.

General Operating Requirements

7:26-11.4(a)1	Is run-on diverted away from all portions of the landfill?	___	___	___
---------------	--	-----	-----	-----

7:26-11.4(a)2	Is run-off from active portions of the landfill collected?	___	___	___
---------------	--	-----	-----	-----

7:26-11.4(a)3	Is waste which is subject to wind dispersal controlled?	___	___	___
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Please explain how.

7:26-11.4(a)4	Does waste disposal or the disposal operation occur within 200 feet (60.6 meters) of the property boundary?	___	___	___
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7:26-11.4(a)6	Are untreated, ignitable, or reactive wastes placed in the landfill?	___	___	___
---------------	--	-----	-----	-----

If yes, explain.

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-11.4(a)7	Are incompatible wastes, or incompatible wastes and materials placed in the same hazardous waste landfill cell? If yes, explain.	—	—	—
7:26-11.4(a)8	Are bulk or non-containerized liquid waste or waste containing free liquids placed in a hazardous waste landfill? If yes:	—	—	—
7:26-11.4(a)8i	Does the hazardous waste landfill have a liner which is chemically and physically resistant to the added liquid and a functioning leachate collection and removal system with a capacity sufficient to remove all leachate produced?	—	—	—
7:26-11.4(a)8ii	Before disposal, is the liquid waste or waste containing free liquids treated or stabilized, chemically or physically, so that free liquids are no longer present?	—	—	—
7:26-11.4(a)9	Are containers holding liquid waste or waste containing free liquids placed in a hazardous waste landfill? If yes:	—	—	—
7:26-11.4(a)9i	Is the container designed to hold liquids or free liquids for a use other than storage, such as a battery?	—	—	—
7:26-11.4(a)9ii	- Is the container very small, such as an ampule?	—	—	—
7:26-11.4(a)10	Are empty containers crushed flat, shredded, or similarly reduced in volume before it is buried beneath the surface of a hazardous waste landfill?	—	—	—
7:26-11.4(a)11	Does the owner or operator of a hazardous waste landfill continue to dispose of hazardous wastes subsequent to the detection of any liquid, in the secondary collection system?	—	—	—
7:26-11.4(b)	Does the owner or operator of a hazardous waste landfill maintain an operating record required in N.J.A.C. 7:26-9.4(i)?	—	—	—

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-11.4(b)1	Does the owner/operator maintain a map, the exact location and dimensions, including depth of each cell with respect to permanently surveyed bench marks?	—	—	—
7:26-11.4(b)2	The contents of each cell and the appropriate location of each hazardous waste type within each cell?	—	—	—
	Are containers holding liquid waste or waste containing free liquids placed in the landfill?	—	—	—
	Please describe the types and contents of such containers placed in the landfill.			
	Are empty containers placed in the landfill crushed flat, shredded or similarly reduced in volume before they are buried?	—	—	—
	Are small containers of hazardous waste in overpacked drums placed in the landfill?	—	—	—
	If yes, please describe precautions taken to prevent the release of the waste.			
7:26-11.5	<u>Incinerator</u>			
	What type of incinerator is at the site (e.g., waterwall incinerator, boiler, fluidized bed, etc.)			
	List the types and quantities of hazardous waste incinerated.			

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
	Is the residue from the incinerator a hazardous waste?	—	—	—
	What types of air pollution control devices (if any) are installed in the incinerator unit?			
	Is energy recovered from the process?	—	—	—
	If yes, describe.			
	What is the destruction and removal efficiency for the organic hazardous waste constituents?			
7:26-11.5(b)1	Does the operating record include additional analysis and to determine types of pollutants which might be emitted including:			
7:26-11.5(b)1i	Heating value of the waste?	—	—	—
7:26-11.5(b)1ii	Halogen and sulfur content?	—	—	—
7:26-11.5(b)1iii	Concentrations of lead and mercury?	—	—	—
7:26-11.5(2)	-If no to any of the above questions, is there justification and documentation?	—	—	—
	If operating, does it appear the incinerator is operating at steady state for conditions of operation, including temperature and air flow?	—	—	—
	<u>Monitoring and Inspection</u>			
7:26-11.5(c)1	Are existing instruments relating to combustion and emission controls monitored every 15 minutes?	—	—	—
	If no, explain.			

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-11.5(c)1	Does the incinerator have all the following instruments for measuring: wastefeed, auxiliary fuel feed air flow, incinerator temperature scrubber flow, and scrubber pH? (Circle missing instruments.)	—	—	—
	If no, explain.			
7:26-11.5(c)2	Is the stack plume observed visually at least hourly for opacity and color?	—	—	—
7:26-11.5(c)3	Are there any signs of leaks, spill and fugitive emission associated with the pumps, valves, conveyors, pipes, etc?	—	—	—
	If yes, describe.			
7:26-11.5(c)3	Are all emergency shutdown controls and system alarms checked to assure proper operation?	—	—	—
	Is there any reason to believe the incinerator is being operated improperly? i.e., steady state conditions are not maintained.	—	—	—
	If yes, explain.			
7:26-11.5(c)3	Is the incinerator inspected daily?	—	—	—
7:26-11.5(e)	Is there open burning of hazardous waste?	—	—	—
	If yes, what is being burned? (Only burning or detonation of explosives is permitted.)			
	If open burning or detonation of explosives is taking place, approximately what is the distance from the open burning or detonation to the property of others?			

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
Are containers holding liquid waste or waste containing free liquids placed in the landfill?	—	—	—
Please describe the types and contents of such containers placed in the landfill.			
Are empty containers placed in the landfill crushed flat, shredded or similarly reduced in volume before they are buried?	—	—	—
Are small containers of hazardous waste in overpacked drums placed in the landfill?	—	—	—
If yes, please describe precautions taken to prevent the release of the waste.			

7:26-11.6

Thermal Treatment

What type of thermal treatment is at the site (e.g., waterwall incinerator, boiler, fluidized bed, etc.)

List the types and quantities of hazardous waste thermally treated.

Is the residue from the thermal treatment unit a hazardous waste?

What types of air pollution control devices (if any) are installed in the thermal treatment unit?

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
	Is energy recovered from the process?	___	___	___
	If yes, describe.			
	What is the destruction and removal efficiency for the organic hazardous waste constituents?			
7:26-11.6(b)1	Does the operating record include additional analysis and to determine types of pollutants which might be emitted including:			
7:26-11.6(b)1i	Heating value of the waste?	___	___	___
7:26-11.6(b)1ii	Halogen and sulfur content?	___	___	___
7:26-11.6(b)1iii	Concentrations of lead and mercury?	___	___	___
7:26-11.6(2)	If no to any of the above questions, is there justification and documentation?	___	___	___
	If operating, does it appear the thermal treatment unit is operating at steady state for conditions of operation, including temperature and air flow?	___	___	___
	<u>Monitoring and Inspection</u>			
	Are existing instruments relating to combustion and emission controls monitored every 15 minutes?	___	___	___
	If no, explain.			
7:26-11.6(c)1	Does the thermal treatment have all the following instruments for measuring: wastefeed, auxiliary fuel feed air flow, incinerator temperature scrubber flow, and scrubber pH? (Circle missing instruments.)	___	___	___
	If no, explain.			

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
7:26-11.6(c)2	Is the stack plume observed visually at least hourly for opacity and color?	___	___	___
7:26-11.6(c)3	Are there any signs of leaks, spill and fugitive emission associated with the pumps, valves, conveyors, pipes, etc?	___	___	___
	If yes, describe.			
7:26-11.6(c)3	Are all emergency shutdown controls and system alarms checked to assure proper operation?	___	___	___
	Is there any reason to believe the thermal treatment unit is being operated improperly? i.e., steady state conditions are not maintained.	___	___	___
	If yes, explain.			
7:26-11.6(c)3	Is the thermal treatment inspected daily?	___	___	___
7:26-11.6(e)	Is there open burning of hazardous waste?	___	___	___
	If yes, what is being burned? (Only burning or detonation of explosives is permitted.)			
	If open burning or detonation of explosives is taking place, approximately what is the distance from the open burning or detonation to the property of others?			
7:26-11.7	<u>Chemical, Physical and Biological Treatment</u> (Other than in tanks, surface impoundments or plant treatment facilities)			

		<u>YES</u>	<u>NO</u>	<u>N/A</u>
	Describe the treatment system at this facility and the types of wastes treated.			
7:26-11.7(a)2	Does the treatment process system show any signs of ruptures, leaks or corrosion? If yes, describe.	___	___	___
7:26-11.7(a)3	Is there a means to stop the inflow of continuously-fed hazardous wastes? <u>Inspections</u>	___	___	___
7:26-11.7(c)1	Is the discharge control safety equipment (e.g., waste feed cut-off systems, by-pass systems, drainage systems and pressure relief systems) in good working order?	___	___	___
7:26-11.7(c)1	Are they inspected at least once each operation day?	___	___	___
7:26-11.7(c)2	Does the data gathered from the monitoring equipment (e.g., pressure and temperature gauges) show treatment process is operating according to design?	___	___	___
7:26-11.7(c)2	Is data gathered at least once each operating day?	___	___	___
7:26-11.7(c)3	Are construction materials of the treatment process inspected at least weekly to detect corrosion or leaking of fixtures and seams?	___	___	___
7:26-11.7(c)4	Are the discharge confinement structures (e.g., dikes) immediately surrounding the treatment unit inspected at least weekly to detect erosion or obvious signs of leakage (e.g., wet spots or dead vegetation).	___	___	___
7:26-11.7(e)1	Are ignitable or reactive waste fed into the waste treatment system treated or protected from any material or conditions which may cause it to ignite or react? If yes, explain how.	___	___	___

7:26-11.7(f)

Are the incompatible wastes placed in the same
treatment process?

YES NO N/A

If yes, please explain.

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EPA-ID NJD064263817

FEDERAL ENVIRONMENTAL SUPERFUND RECORDS
Records of Decision - ROD
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ROD DATE : September 29, 1986

SITE NAME : SYNCON RESINS

LOCATION : KEARNY, NJ

NTIS REPORT #: EPA/ROD/R02-86/033

MEDIA : GROUNDWATER

SEDIMENT

SOIL

CONTAMINANTS : HEAVY METALS

ORGANIC COMPOUNDS

PCBS

PESTICIDES

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REMEDY :

- REMOVE THE CONTENTS OF STORAGE TANKS AND VESSELS FOR DISPOSAL IN ACCORDANCE WITH APPLICABLE REQUIREMENTS
- DECONTAMINATE BUILDINGS AND TANK STRUCTURES AS NECESSARY
- REMOVE LAGOON LIQUIDS AND SEDIMENTS FOR DISPOSAL IN ACCORDANCE WITH APPLICABLE REQUIREMENTS
- REMOVE GROSSLY CONTAMINATED SURFACE SOILS FOR DISPOSAL IN ACCORDANCE WITH APPLICABLE REQUIREMENTS
- INSTALL AN APPROPRIATE COVER OVER THE SITE TO ALLOW NATURAL FLUSHING OF UNDERLYING SOIL AND GROUND WATER CONTAMINANTS
- COLLECT AND TREAT CONTAMINATED WATERS FROM THE SHALLOW AQUIFER, WITH DISCHARGE TO THE PASSAIC RIVER
- CONDUCT SUPPLEMENTAL STUDIES TO EVALUATE METHODS TO ENHANCE THE EFFECTIVENESS OF FLUSHING AND/OR TREATMENT AND DESTRUCTION OF THE CONTAMINATED SOILS.

ABSTRACT :

THE SYNCON RESINS SITE ENCOMPASSES APPROXIMATELY 15 ACRES AND IS LOCATED IN A HEAVILY INDUSTRIALIZED AREA OF NORTHERN NEW JERSEY. THE SYNCON RESIN FACILITY PRODUCED ALKYD RESIN CARRIERS FOR PIGMENTS, PAINTS, AND VARNISH PRODUCTS. IN THE PRODUCTION PROCESS EXCESS XYLENE

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OR TOLUENE WAS SEPARATED FROM THE WASTEWATER AND REUSED IN SUBSEQUENT REACTIONS. THE REMAINING WASTEWATER WAS SUBSEQUENTLY PUMPED TO AN UNLINED LEACHING POND (LAGOON) TO EVAPORATE OR PERCOLATE INTO THE SOIL. THE SAMPLING PERFORMED DURING THE REMEDIAL INVESTIGATION INDICATED EXTENSIVE ONSITE CONTAMINATION IN THE SOIL, GROUND WATER, BUILDING DIRT/DUST, AND STAINLESS VESSELS AND TANKS. FOUR GENERAL CLASSES OF CHEMICAL CONTAMINANTS WERE FOUND ONSITE; ORGANIC COMPOUNDS, PESTICIDES, PCBS AND METALS.

THE COST-EFFECTIVE REMEDIAL ACTION SELECTED FOR THIS SITE INCLUDES; REMOVING THE CONTENTS OF THE STORAGE TANKS AND VESSELS FOR OFFSITE DISPOSAL; DECONTAMINATING BUILDINGS AND TANK STRUCTURES AS NECESSARY; EXCAVATION OF LAGOON LIQUIDS, SEDIMENTS AND GROSSLY CONTAMINATED SURFACE SOILS AND DISPOSE OFFSITE; INSTALL A COVER OVER THE SITE THAT ALLOWS

NATURAL FLUSHING; PUMP AND TREAT GROUND WATER; AND CONDUCT SUPPLEMENTAL STUDIES TO EVALUATE METHODS WHICH ENHANCE THE EFFECTIVENESS OF FLUSHING AND/OR TREATMENT AND DESTRUCTION OF CONTAMINATED SOILS. THE ESTIMATED CAPITAL COST FOR THE SELECTED REMEDIAL ACTION IS \$5,600,000 AND ANNUAL O&M COSTS ARE APPROXIMATELY \$209,000.

THE ROD HAS BEEN REVIEWED BY THE APPROPRIATE PROGRAM OFFICES WITHIN REGION II AND THE STATE OF NEW JERSEY AND THEIR INPUT AND COMMENTS ARE REFLECTED IN THIS DOCUMENT. IN ADDITION, A LETTER FROM THE STATE

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CONFIRMING ITS VERBAL CONCURRENCE OF THE SELECTED REMEDY IS FORTHCOMING. ATTACHMENT.

RECORD OF DECISION

REMEDIAL ALTERNATIVE SELECTION

SITE : SYNCON RESINS, KEARNY, NEW JERSEY.

REGION : 2

DOCUMENTS REVIEWED

I AM BASING MY DECISION ON THE FOLLOWING DOCUMENTS, WHICH DESCRIBE THE ANALYSIS OF REMEDIAL ALTERNATIVES CONSIDERED FOR THE SYNCON RESINS SITE.

- REMEDIAL INVESTIGATION REPORT, PREPARED BY EBASCO SERVICES, MAY 1986 (REVISED AUGUST 1986)

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- RISK ASSESSMENT REPORT, PREPARED BY EBASCO SERVICES, JUNE 1986 (REVISED AUGUST 1986)
- IDENTIFICATION AND SCREENING OF REMEDIAL ALTERNATIVES, PREPARED BY EBASCO SERVICES, JUNE 1986 (REVISED AUGUST 1986)
- FEASIBILITY STUDY REPORT, PREPARED BY EBASCO SERVICES, JULY 1986 (REVISED AUGUST 1986)
- RESPONSIVENESS SUMMARY, SEPTEMBER 1986
- STAFF SUMMARIES AND RECOMMENDATIONS.

DECLARATIONS

CONSISTENT WITH THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT OF 1980, AND THE NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN (40 CFR PART 300), I HAVE DETERMINED THAT THE ALTERNATIVE DESCRIBED HEREIN IS AN OPERABLE UNIT INVOLVING CONTROL OF THE SOURCE OF CONTAMINATION WHICH IS COST-EFFECTIVE AND CONSISTENT WITH A

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PERMANENT REMEDY.

I HAVE FURTHER DETERMINED THAT THIS REMEDY IS A COST-EFFECTIVE ALTERNATIVE THAT IS TECHNOLOGICALLY FEASIBLE AND RELIABLE, AND WHICH EFFECTIVELY MITIGATES AND MINIMIZES DAMAGES TO AND PROVIDES ADEQUATE PROTECTION OF PUBLIC HEALTH, WELFARE AND THE ENVIRONMENT.

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IMPLEMENTATION OF THIS OPERABLE UNIT IS APPROPRIATE AT THIS TIME, PENDING A DETERMINATION OF THE NEED FOR ANY FURTHER REMEDIAL ACTIONS. IT IS ALSO HEREBY DETERMINED THAT IMPLEMENTATION OF THE SELECTED REMEDY IS APPROPRIATE WHEN BALANCED AGAINST THE AVAILABILITY OF TRUST FUND MONIES FOR USE AT OTHER SITES.

THE STATE OF NEW JERSEY HAS BEEN CONSULTED AND AGREES WITH THE SELECTED REMEDY.

SEPTEMBER 29, 1986 CHRISTOPHER J. DAGGETT
DATE REGIONAL ADMINISTRATOR.

SUMMARY OF REMEDIAL ALTERNATIVE SELECTION

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SYNCON RESINS SITE, KEARNY, NEW JERSEY

SITE LOCATION AND DESCRIPTION

THE SYNCON RESINS SITE ENCOMPASSES APPROXIMATELY 15 ACRES AND IS LOCATED IN A HEAVILY INDUSTRIALIZED AREA OF NORTHERN NEW JERSEY. THE SITE IS LOCATED IN KEARNY, HUDSON COUNTY, AT APPROXIMATELY 40 DEGREES 44 FEET LATITUDE AND 74 DEGREES 06 FEET LONGITUDE. THE SITE IS BOUNDED ON ITS WESTERN EDGE BY THE PASSAIC RIVER (FIGURE 1). ADJACENT TO THE NORTHERN AND SOUTHERN BOUNDARIES OF THE SITE ARE TWO LICENSED HAZARDOUS WASTE HAULERS. THE SITE IS BOUNDED ON THE EASTERN SIDE BY JACOBUS AVENUE AND IS ACROSS THE STREET FROM A LACQUER MANUFACTURING FACILITY.

THE SYNCON RESINS SITE IS SITUATED ON A NARROW PENINSULA OF LAND BORDERED BY THE PASSAIC AND HACKENSACK RIVERS, WHOSE CONFLUENCE 1.5 MILES SOUTH OF THE SITE FORMS THE UPPER REACHES OF NEWARK BAY. THE SITE IS RELATIVELY FLAT WITH MINOR TOPOGRAPHIC VARIATIONS. THE ELEVATION AT THE SITE RANGES FROM FIVE TO TEN FEET ABOVE MEAN SEA LEVEL (MSL). BOTH THE PASSAIC AND HACKENSACK RIVERS ARE TIDAL WATER BODIES WITH A MEAN SPRING TIDAL RANGE OF

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APPROXIMATELY SIX FEET. NEWARK BAY, THE PASSAIC RIVER, AND THE HACKENSACK RIVER ARE MAJOR COMPONENTS OF THE HUDSON RIVER-NEW YORK BIGHT ESTUARINE SYSTEM.

THE NARROW PENINSULA ON WHICH THE SYNCON RESINS SITE IS LOCATED IS HEAVILY INDUSTRIALIZED. VARIOUS CHEMICAL PLANTS, HAZARDOUS WASTE TRANSPORTERS, MANUFACTURING COMPANIES, PETROLEUM FACILITIES, AND STORAGE TERMINALS ARE SITUATED WITHIN THE IMMEDIATE AREA. THE CLOSEST RESIDENTIAL AREAS TO THE SITE ARE LOCATED APPROXIMATELY ONE MILE DUE WEST IN NEWARK AND ONE AND ONE-HALF MILES DUE SOUTHEAST IN JERSEY CITY. THE SHALLOW AQUIFER IN THE AREA IS NOT UTILIZED FOR ANY PURPOSE. GROUND WATER FROM THE CONFINED OR DEEPER AQUIFER WITHIN THE AREA IS UTILIZED SOLELY FOR INDUSTRIAL PURPOSES. ALL POTABLE WATER FOR THE AREA'S USERS IS SUPPLIED VIA MUNICIPAL WATER PURVEYORS.

THE SYNCON RESINS SITE AND THE SURROUNDING AREA ARE SITUATED WITHIN THE HUDSON RIVER DRAINAGE BASIN. THE MATERIAL OVERLYING THE BEDROCK COMPRISES PRIMARILY ALLUVIAL SANDS, SILTS, CLAY AND DETRITUS. IMMEDIATELY BENEATH THE SITE ARE FOUR MAJOR STRATIGRAPHIC UNITS WITHIN THE ALLUVIAL MATERIAL: 1) A SURFICIAL

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FINE TO COARSE SAND LAYER APPROXIMATELY 10 FEET THICK, 2) A HIGHLY PLASTIC CLAY LAYER APPROXIMATELY 8-10 FEET THICK, 3) A MEDIUM SAND LAYER APPROXIMATELY 10 FEET THICK, AND 4) A DEEP LAYER OF SILTY CLAY AND VERY FINE SAND APPROXIMATELY 15 FEET THICK. ALL FOUR STRATIGRAPHIC UNITS ARE CONTINUOUS ACROSS THE SITE.

THE TWO SAND LAYERS ARE SEPARATED BY THE CLAY LAYER, WHICH ACTS AS AN AQUITARD, THEREBY FORMING TWO AQUIFERS BENEATH THE SYNCON RESINS SITE: 1) A SHALLOW, WATER TABLE AQUIFER ABOVE THE CLAY LAYER AND 2) A DEEP, CONFINED AQUIFER BENEATH THE CLAY LAYER. OVER MOST OF THE SITE, THE WATER TABLE IS ONE TO TWO FEET BELOW GROUND LEVEL AND GENTLY SLOPES TO THE WEST TOWARD THE PASSAIC RIVER. THE CONFINING LAYER OF CLAY UNDERLYING THE SITE BEGINS APPROXIMATELY 10 FEET BELOW GRADE. GROUND WATER VELOCITY WITHIN THE SHALLOW AQUIFER WAS CALCULATED TO BE 31.2 FEET PER YEAR. THE DEEP AQUIFER HAS AN ESTIMATED GROUND WATER VELOCITY OF 2.1 FEET PER YEAR.

SITE HISTORY

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THE ORIGIN OF THE SYNCON RESINS SITE IS OBSCURE. THE EARLIEST EVIDENCE DOCUMENTING THE EXISTENCE OF THE SITE CONSISTS OF 1951 AERIAL PHOTOGRAPHS OF THE AREA. IN NOVEMBER 1981, THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP) INVESTIGATED THE SITE AND ORDERED ITS OWNERS TO CONTROL AND CONTAIN THE HAZARDS AT THE SITE. IN MAY 1977, THE OWNERS OF SYNCON RESINS FILED FOR BANKRUPTCY UNDER CHAPTER 11 OF THE BANKRUPTCY ACT; IN 1982, THE COMPANY CEASED ALL OPERATIONS. IN DECEMBER 1982, THE SITE WAS LISTED ON THE NATIONAL PRIORITIES LIST.

THE SYNCON RESINS FACILITY PRODUCED ALKYD RESIN CARRIERS FOR PIGMENTS, PAINTS, AND VARNISH PRODUCTS. THE PROCESSES THAT PRODUCED THESE RESINS WERE CARRIED OUT IN CLOSED STAINLESS STEEL VESSELS. COOLING WATER UTILIZED IN THE PRODUCTION PROCESS WAS RECYCLED WITHIN THE SYSTEM. IN THE PRODUCTION PROCESS, EXCESS XYLENE OR TOLUENE WAS SEPARATED FROM THE WASTEWATER AND REUSED IN SUBSEQUENT REACTIONS. THE REMAINING WASTEWATER WAS SUBSEQUENTLY PUMPED TO AN UNLINED LEACHING POND (LAGOON), WHERE IT WAS ALLOWED TO EVAPORATE OR PERCOLATE INTO THE SOIL. APPARENTLY, MUCH OF THE COMPANY'S OPERATIONS CONSISTED OF THE REPROCESSING OF OFF-SPECIFICATION RESINS PURCHASED FROM OTHER MANUFACTURERS.

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THE SITE CONSISTED OF AT LEAST TWO REACTOR BUILDINGS CONTAINING STAINLESS STEEL VESSELS, VARIOUS OTHER BUILDINGS AND STRUCTURES, NUMEROUS LARGE BULK STORAGE TANKS, TWO UNLINED LAGOONS, AND AN UNKNOWN NUMBER OF UNDERGROUND TANKS AND ASSOCIATED PIPING SYSTEMS (FIGURE 2). A TOTAL OF 12,824 55-GALLON DRUMS OF OFF-SPECIFICATION RESINS, RAW MATERIALS, WASTES AND SOLVENTS STORED AT VARIOUS LOCATIONS ON THE SITE WERE REMOVED IN 1984, UNDER A COOPERATIVE AGREEMENT BETWEEN THE NJDEP AND THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA), AT A COST OF \$2.4 MILLION. STILL REMAINING ON-SITE ARE NUMEROUS LABORATORY CHEMICALS AND BATCH SAMPLES OF RESINS WHICH ARE SCHEDULED TO BE REMOVED IN THE NEAR FUTURE.

AS STATED ABOVE, THE TWO UNLINED LAGOONS AT THE SITE WERE USED FOR DISCHARGING PROCESS WASTEWATER. LAGOON 1 IS THE LARGER OF THE TWO LAGOONS, WITH APPROXIMATE DIMENSIONS OF 40 BY 135 FEET.

LAGOON 2 IS APPROXIMATELY 40 BY 15 FEET IN SIZE. THE DEPTH OF EACH LAGOON HAS BEEN ESTIMATED AT 4 FEET.

SIX MAIN BUILDINGS AND SEVEN ANCILLARY STRUCTURES EXIST ON THE
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SYNCON RESINS SITE. BUILDING B-1 APPEARED TO BE PRIMARILY UTILIZED FOR MAINTENANCE AND STORAGE, WITH THE WESTERN THIRD OF THE BUILDING BEING UTILIZED FOR SOME PRODUCTION AND/OR PROCESS WORK. BUILDING B-7 WAS THE MAIN PRODUCTION/PROCESS BUILDING AND ELECTRICAL SERVICE FACILITY. BUILDING B-10, NEAR THE FRONT GATE, CONTAINED ADMINISTRATIVE OFFICES ON THE SECOND FLOOR AND PROBABLY UTILIZED THE FIRST FLOOR AS A STORAGE AREA. BUILDING B-11, NEAR LAGOON 2, MAY HAVE SERVED AS AN EQUIPMENT STORAGE AND/OR MAINTENANCE AREA. BUILDING B-RED, WITH LOADING DOCKS ADJACENT TO THE RAILROAD TRACKS AND PARKING AREAS, MOST PROBABLY SERVED AS A SHIPPING/RECEIVING OR SHORT-TERM STORAGE AREA. A LABORATORY (BUILDING B-8) LOCATED NEAR THE MAIN ENTRANCE AND ADJACENT TO BUILDING B-10 WAS UTILIZED FOR IN-PROCESS FORMULATIONS AND QUALITY CHECKS OF THE FINISHED PRODUCT. THE OTHER BUILDINGS ON-SITE WERE ALSO USED IN PROCESS-RELATED ACTIVITIES.

CURRENT SITE STATUS

A. PREVIOUS INVESTIGATIONS

IN 1982, A LIMITED SITE INVESTIGATION WAS PERFORMED BY THE
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NJDEP AND THE EPA AT THE SYNCON RESINS SITE. THIS INVESTIGATION FOCUSED ON A PRELIMINARY ASSESSMENT OF THE TYPES AND EXTENT OF CONTAMINANTS AT THE FACILITY.

THE INVESTIGATION SHOWED WIDESPREAD CONTAMINATION. WITHIN THE DEEP AQUIFER, SIX CONTAMINANTS (BENZENE, METHYLENE CHLORIDE, TETRACHLOROETHYLENE, CHLOROFORM, CARBON TETRACHLORIDE AND PCBS) EXCEEDED ADJUSTED AMBIENT WATER QUALITY CRITERIA (AAWQC). SHALLOW GROUND WATER WAS GROSSLY CONTAMINATED WITH 24 ORGANIC COMPOUNDS, OF WHICH FOURTEEN EXCEEDED AAWQC. THIRTEEN OF THESE CONTAMINANTS WERE FOUND AT EXTREMELY HIGH CONCENTRATIONS (GREATER THAN 760 PARTS PER MILLION (PPM)), WITH NINE OF THEM PRESENT IN THE GROUND WATER AT PERCENT LEVELS (PARTS PER HUNDRED). SEVEN CONTAMINANTS FOUND IN THE SHALLOW GROUND WATER COULD NOT BE COMPARED TO THE WATER QUALITY CRITERIA SINCE NO CRITERIA CURRENTLY EXIST FOR THESE COMPOUNDS.

GROSS CHEMICAL CONTAMINATION WAS FOUND WITHIN THE SYNCON RESINS FACILITY'S SOILS. TEN BASE/NEUTRAL COMPOUNDS IN EXCESS OF 400 PPM AND HIGH CONCENTRATIONS OF TOLUENE AND
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METHYLENE CHLORIDE WERE FOUND IN TEST PIT SOILS. PCBS (GREATER THAN 33,000 PPM), DDT (IN EXCESS OF 1400 PPM) AND HIGH CONCENTRATIONS OF ARSENIC, CHROMIUM, LEAD, MERCURY, AND ZINC WERE ALSO PRESENT. NEARLY ALL OF THE COMPOUNDS FOUND IN THE TEST PIT SOILS ARE SUSPECTED CARCINOGENS.

TWO LOCALIZED AREAS OF HIGH CONCENTRATIONS OF CONTAMINANTS OR 'HOT SPOTS' WERE IDENTIFIED DURING THIS INVESTIGATION:
1) THE SOUTHWEST CORNER OF THE SITE ADJACENT TO THE PASSAIC RIVER, AND 2) THE NORTHEAST CORNER OF THE PROPERTY NEAR THE

LARGE 600,000-GALLON STORAGE TANKS. HIGH CONCENTRATIONS OF TOLUENE AND PCBs WERE FOUND IN THE SOUTHWEST CORNER, WHEREAS ELEVATED CONCENTRATIONS OF NAPHTHALENE AND PETROLEUM HYDROCARBONS OCCURRED IN THE NORTHEAST CORNER.

A SURVEY OF THE 12,824 55-GALLON DRUMS STORED AT VARIOUS ON-SITE LOCATIONS REVEALED THREE MAIN CLASSES OF MATERIALS: NON-PCB CONTAINING, PCB CONTAINING, AND PEROXIDES. MOST OF THE DRUMMED MATERIAL DID NOT CONTAIN PCBs AND COULD BE SEPARATED INTO FIVE CATEGORIES: BULK SOLIDS (2,441 TONS), FLAMMABLE SOLIDS (1,452 DRUMS), LAB PACKS (10 DRUMS),

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FLAMMABLE LIQUIDS (79,100 GALLONS) AND BASE/NEUTRAL LIQUIDS (66,911 GALLONS). PCB CONTAINING MATERIALS WERE CATEGORIZED AS BULK SOLIDS (1 TON), DRUMMED LIQUIDS (29 DRUMS) AND FLAMMABLE MATERIALS (49 DRUMS). ONLY SIX DRUMS OF PEROXIDE WERE FOUND ON-SITE. ALL OF THESE DRUMMED MATERIALS WERE REMOVED FROM THE SITE BY LICENSED WASTE HAULERS.

B. PRESENT SITE INVESTIGATIONS

THE SAMPLING PERFORMED DURING THE REMEDIAL INVESTIGATION INDICATED EXTENSIVE ON-SITE CONTAMINATION IN ALL OF THE MATRICES SAMPLED (I.E., VESSELS AND TANKS, SOIL, GROUND WATER, AND BUILDING DIRT/DUST), EXCEPT FOR AMBIENT AIR. FOUR GENERAL CLASSES OF CHEMICAL CONTAMINANTS WERE FOUND ON-SITE: ORGANIC COMPOUNDS (VOLATILES AND BASE/NEUTRAL EXTRACTABLES), PESTICIDES, PCBs, AND METALS. THE ORGANIC COMPOUNDS PRESENT ARE NORMAL RAW MATERIALS AND/OR RESIN COMPONENTS, AND THE METALS SEEN ARE PROBABLY FROM METALLIC OXIDES OR ORGANOMETALLICS UTILIZED AS PIGMENTS OR CATALYSTS IN THE PRODUCTION PROCESSES.

A TOTAL OF 150 TANKS AND VESSELS REMAIN ON-SITE INCLUDING

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THREE WHICH ARE UNDERGROUND. APPROXIMATELY HALF OF THE ON-SITE TANKS ARE EMPTY. OF THOSE TANKS CONTAINING MATERIAL, MOST OF THE TANKS CONTAINED EITHER HEXANE OR WATER-SOLUBLE PEROXIDES OR HEXANE-SOLUBLE LIQUIDS AND SOLIDS. TABLE 1 SUMMARIZES THE TANKS AND VESSELS, THEIR CONTENTS, AND VOLUMES OF MATERIAL.

FOUR TANKS (APPROXIMATELY 7,000 GALLONS) CONTAINED AQUEOUS LIQUIDS; WHEREAS TWO TANKS (APPROXIMATELY 900 GALLONS) CONTAINED CYANIDE-POSITIVE ORGANICS. TWO TANKS WERE ESSENTIALLY EMPTY EXCEPT FOR A MINIMAL AMOUNT OF A SOLID, HEXANE-SOLUBLE MATERIAL. FOURTEEN TANKS WERE CATEGORIZED AS SPECIAL CASES BECAUSE IT WAS DIFFICULT TO ASSIGN THEM TO A SINGLE GENERAL CATEGORY. MOST OF THESE FOURTEEN TANKS CONTAINED FLAMMABLE LIQUIDS OR SOLIDS, CRYSTALLINE OR POLYMERIC MATERIAL, OR SLUDGE RESIDUES. IN ADDITION TO THEIR CHEMICAL CONTENT, SOME TANKS AND ASSOCIATED PIPING WERE ENCASED IN AN ASBESTOS-BASE MATERIAL.

CONTAMINATION FROM ORGANIC COMPOUNDS EXISTS THROUGHOUT THE SYNCON RESINS SITE (TABLES 2 THROUGH 7). VOLATILE ORGANIC CONTAMINANT

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CONCENTRATIONS WERE GREATEST IN THE LAGOON SEDIMENTS, IN SATURATED AND UNSATURATED SOILS NEAR THE SOUTHWEST CORNER OF THE SITE ADJACENT TO LAGOON 2, AND AROUND BUILDINGS 1 AND 7. PRIMARILY,

THE VOLATILE CONTAMINANTS WERE COMMON SOLVENTS: TOLUENE, XYLENE, TRICHLOROETHYLENE, ETHYLBENZENE, BENZENE, 2-HEXANONE, METHYL ISOBUTYL KETONE, AND CHLOROBENZENE. THE DATA SUGGEST THAT THIS CONTAMINATION MAY HAVE BEEN CAUSED, IN PART, BY SOLVENT CARRY-OVER INTO THE WASTEWATER AND SPILLS.

THE SHALLOW AQUIFER WAS CONTAMINATED PRIMARILY WITH THE SAME VOLATILE ORGANIC SOLVENTS AS THOSE FOUND IN THE LAGOON SEDIMENTS AND FORMER PROCESS BUILDINGS (I.E., TOLUENE, XYLENE, TRICHLOROETHYLENE). GENERALLY, THE GREATEST CONCENTRATIONS OF THESE COMMON SOLVENTS OCCURRED IN THE SOUTH-CENTRAL AND SOUTH-WESTERN PORTIONS OF THE SITE NEAR THE TANK FARM AND IN THE NORTHEASTERN PORTION OF THE SITE NEAR FORMER DRUM STORAGE AREAS. THIS SUGGESTS THAT TANK AND DRUM LEAKAGE OR SPILLAGE MAY BE THE PRIMARY SOURCE OF THIS CONTAMINATION.

THE CONFINED AQUIFER BENEATH THE CLAY LAYER DID NOT CONTAIN ANY VOLATILE ORGANIC SOLVENTS FOUND IN OTHER ON-SITE MATRICES. THUS,

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THE CONFINING CLAY LAYER BENEATH THE SITE APPEARS TO ACT AS A BARRIER TO VERTICAL MIGRATION OF CHEMICAL CONTAMINANTS. TWO SOLVENTS (1,1-DICHLOROETHANE AND CHLOROBENZENE) WERE PRESENT IN THE DEEP AQUIFER, BUT THEIR ABSENCE FROM ON-SITE WATER MATRICES SUGGEST AN OFF-SITE SOURCE.

ACID/BASE/NEUTRAL ORGANIC COMPOUNDS PRESENT IN SATURATED AND UNSATURATED SOILS ON-SITE WERE PRINCIPALLY PHTHALATES, POLYAROMATIC HYDROCARBONS, DICHLOROBENZENE, N-NITROSODIPHENYLAMINE/DIPHENYLAMINE AND 4-METHYLPHENOL. SURFICIAL PHTHALATE CONTAMINATION WAS FOUND THROUGHOUT THE SITE, WITH THE GREATEST CONCENTRATIONS OCCURRING IN THE SOILS ADJACENT TO THE BUILDINGS AT THE SOUTHEAST CORNER OF THE SITE NEAR JACOBUS AVENUE. IN CONTRAST, NONE OF THE OTHER ACID/BASE/NEUTRAL COMPOUNDS EXHIBITED ANY VERTICAL DISTRIBUTIONAL PATTERN IN THE ON-SITE SOILS. THESE COMPOUNDS WERE INSTEAD CONCENTRATED IN SATURATED AND UNSATURATED SOILS IN OR NEAR FORMER STORAGE, PROCESSING, OR LABORATORY AREAS. THIS SUGGESTS THAT DRUMS, TANKS, OR BUILDINGS MAY BE POSSIBLE POINT SOURCES FOR THESE CONTAMINANTS.

BASE/NEUTRAL ORGANIC COMPOUNDS, PRINCIPALLY NAPHTHALENE AND

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2-METHYL NAPHTHALENE, WERE PRESENT IN THE GROUND WATER NEAR THE SOUTH-CENTRAL TANK FARM AND THE LARGE 600,000-GALLON STORAGE TANKS AT THE NORTHEASTERN CORNER OF THE SITE. THESE COMPOUNDS WERE FOUND ONLY IN THE SHALLOW AQUIFER, ABOVE THE CLAY LAYER. THE CLOSE PROXIMITY OF THE BASE/NEUTRAL COMPOUNDS WITHIN THE SHALLOW AQUIFER TO THE LARGE STORAGE TANKS AND TANK FARM SUGGESTS THAT THESE VESSELS MAY BE CONTAMINANT SOURCES. THE TWO BASE/NEUTRAL COMPOUNDS PRESENT IN THE SHALLOW AQUIFER WOULD HAVE BEEN USED IN THE MANUFACTURE OF SOME OF THE FACILITY'S PRODUCTS.

GENERALLY, THE PESTICIDES PRESENT AT THE SYNCON RESINS SITE WERE FOUND IN SOILS ADJACENT TO FORMER DRUM STORAGE AREAS AND IN THE BUILDING DUST AND DIRT IN FORMER STORAGE AND SHIPPING-RECEIVING BUILDINGS. PESTICIDE CONTAMINATION IN THE SOIL APPEARED TO BE A SURFICIAL PHENOMENON WITH THE HIGHEST CONCENTRATIONS OCCURRING IN UNSATURATED SOILS. THE DISTRIBUTION OF PESTICIDE CONTAMINATION IN SOILS SIMPLY SUGGESTS SPILLAGE, BUT BEARS NO APPARENT CONNECTION WITH RESIN PLANT OPERATIONS.

PCB CONTAMINATION AT THE SYNCON RESINS SITE IS RESTRICTED TO

BUILDINGS, AND ONE SOIL AREA. IT WAS ALSO FOUND IN EIGHT TANKS (TABLE 1) AND OVER 75 DRUMS DURING THE 1984 REMOVAL ACTION. AGAIN, THERE IS NO APPARENT CONNECTION BETWEEN THIS CONTAMINANT (PCBS) AND ALKYD RESIN MANUFACTURING.

WHILE METAL CONTAMINATION WAS PRESENT IN ALL NON-AIR SAMPLE MATRICES, ELEVATED INDIVIDUAL METAL CONCENTRATIONS EXHIBITED DISTINCT ON-SITE DISTRIBUTIONAL PATTERNS WITHIN CERTAIN MATRICES. IN SOILS, THE HIGHEST METAL CONCENTRATIONS WERE GENERALLY PRESENT WITHIN THE WESTERN ONE-THIRD OF THE SITE NEAR THE PASSAIC RIVER AND ADJACENT TO FORMER DRUM/TANK STORAGE AREAS. SPILLAGE ONTO THE SOIL IN THE DRUM/TANK STORAGE AREAS IS THE MOST PROBABLE CAUSE OF THIS CONTAMINATION. IN CONTRAST, INORGANIC CONTAMINATION OF THE SHALLOW AQUIFER SHOWED NO SPECIFIC DISTRIBUTIONAL PATTERN EXCEPT FOR ARSENIC, WHICH ALSO TENDED TO BE HIGHEST IN SURFICIAL SOILS IN THE NORTHERN HALF OF THE SITE.

IN GENERAL, INORGANIC CONSTITUENTS WITHIN THE DEEP AQUIFER WERE METALS NOT FOUND WITHIN THE SHALLOW AQUIFER. EXCLUDING BARIUM AND ZINC, NO OTHER METALS WITHIN THE DEEP AQUIFER WERE DETECTED IN THE SHALLOW GROUND WATER ABOVE THE CLAY LAYER, SUGGESTING
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THAT THE CLAY LAYER SERVES AS AN EFFECTIVE BARRIER TO VERTICAL MIGRATION.

THE LAGOON SEDIMENTS AND THE BUILDING DIRT/DUST CONTAIN SIMILAR RELATIVE PROPORTIONS OF CERTAIN METAL CONCENTRATIONS THAT WOULD HAVE BEEN UTILIZED AT THE SYNCON RESINS SITE DURING ITS OPERATION. THUS, THE BULK OF THE METAL CONTAMINATION AT THE SYNCON RESINS SITE MAY STEM FROM IMPROPERLY HANDLED RAW MATERIALS OR BY-PRODUCTS, ESPECIALLY WITH REGARD TO CATALYSTS AND PIGMENTS.

THE SYNCON RESINS SITE EXHIBITS EXTENSIVE CHEMICAL CONTAMINATION OF ORGANIC COMPOUNDS, PESTICIDES, PCBS AND METALS. ALTHOUGH SOME SPECIFIC CONTAMINANTS WERE CONCENTRATED IN PARTICULAR ON-SITE AREAS, ALL OF THE APPARENT SITE-RELATED CONTAMINANTS WERE RESTRICTED TO MATRICES LOCATED ABOVE THE CLAY LAYER BENEATH THE SITE.

CHEMICAL CONSTITUENTS WERE PRESENT IN THE CONFINED AQUIFER BENEATH THE CLAY LAYER. THESE CONSTITUENTS, HOWEVER, APPEARS TO STEM FROM AN OFF-SITE SOURCE.

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THE CHEMICAL CONTAMINATION PRESENT AT THE SYNCON RESINS SITE IS APPARENTLY RESTRICTED FROM VERTICAL MOVEMENT DUE TO THE CLAY LAYER BENEATH THE SITE. HOWEVER, LATERAL MOVEMENTS OF CONTAMINANTS WITHIN THE SHALLOW AQUIFER ARE NOT RESTRICTED. THE GROUND WATER FLOW WITHIN THE SHALLOW AQUIFER CAN TRANSPORT THESE CONTAMINANTS TO THE PASSAIC RIVER. THIS GROUND WATER MOVEMENT, IN CONJUNCTION WITH TIDAL FLUSHING, IS ONE OF THE PRINCIPAL MEANS OF OFF-SITE TRANSPORT OF CONTAMINANTS.

PUBLIC HEALTH RISKS

BASED ON THE GEOLOGICAL, HYDROLOGICAL, AND CHEMICAL CONTAMINANT CHARACTERISTICS OF THE SYNCON RESINS SITE, ELEVEN POTENTIAL

EXPOSURE PATHWAYS HAVE BEEN IDENTIFIED. THESE PATHWAYS INCLUDE INGESTION, INHALATION, AND DIRECT CONTACT WITH VARIOUS MEDIA.

THREE ON-SITE MATRICES (UNSATURATED SOIL, LAGOON SEDIMENT, AND BUILDING DIRT AND DUST) EXCEEDED HEALTH-BASED CRITERIA FOR ORGANIC AND METAL CONTAMINANTS AND POSE A HEALTH RISK VIA DIRECT CONTACT AND INGESTION.

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IN ADDITION TO THE VARIOUS ON-SITE MATRICES POSING POTENTIAL HEALTH RISKS, SOME OF THE ON-SITE TANKS AND VESSELS CONTAIN MATERIALS THAT COULD POSE POTENTIAL HEALTH RISKS TO EXPOSED POPULATIONS IF LEFT ON-SITE.

ENFORCEMENT

A CLAIM FOR CLEANUP COSTS INCURRED AT THE SITE HAS BEEN FILED IN THE BANKRUPTCY PROCEEDINGS OF SYNCON RESINS, INC. A COST RECOVERY ACTION FOR PART OF THESE COSTS HAS BEEN INITIATED AGAINST BENJAMIN A. FARBER, FORMER OWNER OF THE ENTIRE SYNCON RESINS SITE AND PRESENT OWNER OF A PORTION OF THE SITE.

AN INVESTIGATION IS IN PROGRESS TO IDENTIFY ADDITIONAL POTENTIALLY RESPONSIBLE PARTIES (PRP'S) FOR PURPOSES OF POTENTIAL COST RECOVERY AND ENFORCEMENT ACTIONS IN REGARD TO FUTURE COSTS OF REMEDIAL ACTIVITIES. ANY SUCH ADDITIONAL PARTIES IDENTIFIED AS PRP'S WILL BE INCLUDED IN ALL ACTIONS FOR RECOVERY OF CLEANUP COSTS AND WILL BE SENT NOTICE LETTERS OFFERING THEM THE OPPORTUNITY TO PERFORM THE DESIGN AND CONSTRUCTION ACTIVITIES RECOMMENDED IN THIS DOCUMENT BEFORE EPA AND NJDEP MAKE A DECISION TO FUND

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ANY FUTURE WORK.

DESCRIPTION OF REMEDIAL ALTERNATIVES

THE FEASIBILITY STUDY PROCESS INVOLVES, AS A FIRST STEP, SELECTING TECHNOLOGIES THAT ARE APPROPRIATE FOR REMEDYING THE PUBLIC HEALTH AND ENVIRONMENTAL CONCERNS ASSOCIATED WITH A PARTICULAR SITE. IN THE CASE OF THE SYNCON RESINS SITE, THE REMEDIAL OBJECTIVE IS TO CONTROL THE POTENTIAL RELEASE OF CONTAMINANTS FROM THE SITE.

THE FOLLOWING REMEDIAL OBJECTIVES WERE ESTABLISHED AS A RESULT OF THE RISK ASSESSMENT PERFORMED FOR THE SITE:

- DEVELOP MITIGATIVE MEASURES TO PREVENT EXPOSURE OF HUMANS TO ORGANIC AND METAL CONTAMINANTS WITHIN THE UNSATURATED SOIL, LAGOON SEDIMENTS, AND BUILDING DIRT/DUST THROUGH DIRECT CONTACT AND INGESTION EXPOSURE ROUTES;
- IMPLEMENT MITIGATIVE MEASURES TO ELIMINATE THE POTENTIAL HAZARD TO EXPOSED POPULATIONS CAUSED BY THE ASBESTOS MATERIAL

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COVERING THE ON-SITE TANKS AND VESSELS AND THE CHEMICAL MATERIALS REMAINING WITHIN THEM.

WHILE THE CONTAMINATED, ON-SITE SHALLOW GROUND WATER POSES LITTLE RISK OF DIRECT CONTACT OR INGESTION, IT EVENTUALLY FLOWS INTO THE PASSAIC RIVER AND SO CONSTITUTES A DISCHARGE OF A

HAZARDOUS SUBSTANCE. VARIOUS STATE STATUTES REQUIRE THAT THE NJDEP IMPLEMENT OR REQUIRE THE IMPLEMENTATION OF CORRECTIVE ACTION PROGRAMS WHERE THE WATERS OF THE STATE HAVE BEEN SIGNIFICANTLY DEGRADED BY HAZARDOUS SUBSTANCES.

THE FOLLOWING REMEDIAL OBJECTIVES WERE ESTABLISHED AS A RESULT OF NJDEP'S POLICY ON MAINTAINING OR IMPROVING EXISTING GROUND WATER AND RECEIVING WATER CONDITIONS:

- IMPLEMENT MITIGATIVE MEASURES TO REMEDIATE THE CONTAMINATED GROUND WATER WITHIN THE SHALLOW AQUIFER TO LEVELS IDENTIFIED IN THE FOLLOWING GUIDANCE DOCUMENTS:

- GROUND WATER CRITERIA FOR CLASS GW3 AQUIFERS (N.J.A.C. 7:9-6);

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- NJPDES EFFLUENT LIMITATIONS FOR DISCHARGE INTO THE PASSAIC RIVER (N.J.A.C. 7:9-5); AND

- BEST AVAILABLE TECHNOLOGY (BAT) LIMITATIONS, OPTION III FOR ORGANICS AND PLASTICS AND SYNTHETIC FIBERS, 40 CFR PARTS 414 AND 416, PROPOSED RULE.

- DEVELOP MITIGATIVE MEASURES TO REMEDIATE THE CONTAMINATED SATURATED SOILS ABOVE THE CONTINUOUS CLAY LAYER.

CONSIDERING AVAILABLE TECHNOLOGIES AND THE SITE'S EXISTING PHYSICAL CONDITIONS, SEVERAL REMEDIAL ALTERNATIVES WERE DEVELOPED AND ARE LISTED IN TABLE 8, ALONG WITH THEIR CAPITAL COSTS, OPERATION AND MAINTENANCE COSTS, AND TOTAL PRESENT WORTH COSTS. A SUMMARY OF TREATMENT, STORAGE, AND DISPOSAL METHODOLOGIES FOR THESE ALTERNATIVES IS SHOWN IN TABLE 9.

PRESENT WORTH COSTS FOR ALL ALTERNATIVES WERE CALCULATED USING A THIRTY-YEAR LIFE CYCLE AS A BASIS FOR COMPARISON.

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ALTERNATIVE 1 - NO ACTION

THE NO ACTION ALTERNATIVE INVOLVES INSTALLATION OF A SECURITY FENCE AROUND THE PERIMETER OF THE SITE, REMOVAL OF STRUCTURALLY UNSAFE BUILDINGS TO AN OFF-SITE LANDFILL UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), SEALING OF OTHER ON-SITE BUILDINGS, AND LONG-TERM MONITORING OF THE INTEGRITY OF BUILDINGS, TANKS, AND AIR AND GROUND WATER MATRICES. THIS ALTERNATIVE DOES NOT REMOVE OR REDUCE CONTAMINANT LEVELS ON-SITE. HENCE, THE RISK AND EXPOSURE PATHWAYS ARE NOT MITIGATED AND THE FUTURE REUSE OF THE SITE WOULD BE RESTRICTED.

ALTERNATIVE 2 - REMOVE BUILDINGS, TANKS, AND SOIL, AND OFF-SITE WASTE DISPOSAL

THIS ALTERNATIVE INVOLVES THE REMOVAL OF ALL BUILDINGS, TANKS, TANK CONTENTS, PIPING, AND OTHER STRUCTURES, AS WELL AS SOIL AND SEDIMENT EXCEEDING THE CLEANUP CRITERIA FOR OFF-SITE TREATMENT OR DISPOSAL. UNCONTAMINATED SOIL WOULD REMAIN ON-SITE. THIS REMEDIAL ALTERNATIVE WOULD EXCEED APPLICABLE AND RELEVANT FEDERAL PUBLIC HEALTH AND ENVIRONMENTAL STANDARDS AND WOULD ALLOW FOR

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FUTURE REUSE OF THE PROPERTY.

A. TANKS

THE TOTAL AMOUNT OF LIQUID AND SOLID WASTES IN THE ON-SITE TANKS IS ESTIMATED TO BE 167,000 GALLONS. A TOTAL OF 69 TANKS ARE CURRENTLY CONSIDERED TO BE HAZARDOUS BASED ON THE FOLLOWING CRITERIA:

- FLAMMABLE CONTENTS (FLASH POINT BELOW 60 DEGREES C)
- PCB CONTAMINATION
- PH 2.0 AND BELOW OR 12.0 AND HIGHER
- ASBESTOS INSULATION OF THE TANK.

LIQUID HAZARDOUS WASTES WOULD BE PUMPED FROM THE TANKS AND TRANSFERRED FOR OFF-SITE TREATMENT SUCH AS INCINERATION. NON-HAZARDOUS WASTE MATERIALS WOULD BE TRANSFERRED OFF-SITE FOR TREATMENT AT AN INDUSTRIAL WASTEWATER TREATMENT PLANT WITH THE APPROPRIATE PERMITS. ALL TANKS WOULD BE DEMOLISHED. THE TANKS AND RUBBLE WHICH ARE NOT CONTAMINATED WITH HAZARDOUS WASTE WOULD BE TRANSFERRED TO A PERMITTED

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OFF-SITE SANITARY LANDFILL. CONTAMINATED TANKS AND RUBBLE WOULD BE REMOVED AND TRANSFERRED TO AN OFF-SITE RCRA PERMITTED LANDFILL FACILITY.

B. BUILDINGS

BASED UPON LIMITED ANALYTICAL DATA, ALL THIRTEEN BUILDINGS ON THE SITE ARE CONSIDERED CONTAMINATED. SEVEN BUILDINGS WERE NOT SAMPLED DUE TO EXTENSIVE VISIBLE SIGNS OF RESIN-LIKE ENCRUSTATION ON INTERIOR AND EXTERIOR WALLS, FLOORS AND INTERIOR ANCILLARY ITEMS. THE OIL BUILDING WAS NOT SAMPLED AS IT WAS JUDGED STRUCTURALLY UNSOUND. THE FIVE BUILDINGS SAMPLED WERE CONTAMINATED AT LEVELS EXCEEDING THE MAXIMUM ACCEPTABLE SOIL CONCENTRATIONS FOR CONTAMINANTS AS PRESENTED IN TABLE 10. THESE RECOMMENDED CLEANUP CRITERIA WERE DEVELOPED UNDER THE ENVIRONMENTAL CLEANUP RESPONSIBILITIES ACT (ECRA).

ALL BUILDINGS WOULD BE DEMOLISHED AND THE RESULTING RUBBLE AND BUILDING CONTENTS WOULD BE DISPOSED OF IN AN OFF-SITE RCRA LANDFILL.

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C. SOILS AND SEDIMENTS

TO DISTINGUISH BETWEEN CONTAMINATED AND NON-CONTAMINATED SOILS, THE CLEANUP CRITERIA IDENTIFIED IN TABLE 10 WERE UTILIZED. IT WAS ASSUMED THESE CRITERIA WOULD APPLY TO ALL SOILS AND LAGOON SEDIMENTS ON-SITE. BASED ON A PRELIMINARY ENGINEERING JUDGMENT, APPROXIMATELY 50 PERCENT OF THE SATURATED SOIL, 100 PERCENT OF THE LAGOON SEDIMENT, AND 85 PERCENT OF THE UNSATURATED SOIL AT THE SITE ABOVE THE CLAY LAYER IS CONTAMINATED.

AFTER REMOVAL OF TANKS AND BUILDINGS, EXCAVATION ACTIVITIES WOULD BEGIN. A SAMPLING PROGRAM WOULD BE IMPLEMENTED CONCURRENT WITH THE EXCAVATION TO DETERMINE THE EXTENT OF CONTAMINATION. NON-CONTAMINATED SOIL WOULD REMAIN ON-SITE. CONTAMINATED SOIL WOULD BE DISPOSED OF OFF-SITE

IN A RCRA LANDFILL. CONTAMINATED WATER FROM SATURATED SOIL DEWATERING WOULD BE COLLECTED AND TREATED OFF-SITE AT AN APPROPRIATELY PERMITTED FACILITY. THE SITE WOULD BE RESTORED BY FILLING AND GRADING WITH A STORM RUNOFF

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DRAINAGE SYSTEM.

D. MONITORING

A LONG-TERM MONITORING PROGRAM FOR GROUND WATER WOULD BE PERFORMED QUARTERLY.

ALTERNATIVE 3 - DECONTAMINATE BUILDINGS AND TANKS, ON-SITE INCINERATION AND ON-SITE SOIL WASHING

THIS ALTERNATIVE WOULD PROVIDE ON-SITE INCINERATION FOR INCINERABLE CONTAMINATED WASTE AND ON-SITE SOIL WASHING FOR UNINCINERABLE CONTAMINATED WASTE. INCINERATION USES HIGH TEMPERATURE OXIDATION TO DEGRADE ORGANIC SUBSTANCES INTO PRODUCTS THAT GENERALLY INCLUDE CO₂, H₂O, NO_x AND HCL VAPORS, AND ASH. THE UNDESIRABLE PRODUCTS OF THE THERMAL DESTRUCTION (E.G., PARTICULATES, SO₂, NO_x, HCL, AND PRODUCTS OF INCOMPLETE COMBUSTION) WILL BE REMOVED BY AIR POLLUTION CONTROL EQUIPMENT TO PREVENT THEIR RELEASE TO THE ATMOSPHERE. CONTAMINATED MATERIALS CONTAINING HIGH METAL CONCENTRATIONS MAY NOT BE SUITABLE FOR INCINERATION. IF SO, SOIL WASHING WOULD BE AN ALTERNATIVE ON-SITE TREATMENT METHOD.

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SOIL WASHING PROCESSES WOULD LEACH BOTH ORGANIC AND INORGANIC CONTAMINANTS FROM SOILS AND THE RECOVERED WASTEWATER WOULD BE TREATED BY SUCH PROCESSES AS PHYSICAL-CHEMICAL PRECIPITATION, AIR STRIPPING AND ACTIVATED CARBON ADSORPTION. THE COMBINATION OF INCINERATION AND SOIL WASHING WOULD PROVIDE COMPLETE ON-SITE TREATMENT FOR THE HAZARDOUS WASTES AND CONTAMINATED MATRICES IDENTIFIED AT THE SITE. THIS REMEDIAL ALTERNATIVE WOULD PROVIDE DIRECT SOURCE CONTROL AND WOULD ATTAIN OR EXCEED THE APPLICABLE AND RELEVANT FEDERAL PUBLIC HEALTH AND ENVIRONMENTAL STANDARDS. UPON COMPLETION OF THIS ALTERNATIVE, THE PROPERTY WOULD LIKELY BE SUITABLE FOR REUSE.

A. TANKS

ALL WASTE FROM THE TANKS WOULD BE REMOVED AND SEGREGATED INTO HAZARDOUS AND NON-HAZARDOUS GROUPS. THE HAZARDOUS WASTE WOULD BE TREATED BY ON-SITE INCINERATION AND THE NON-HAZARDOUS WASTE WOULD BE TREATED BY THE ON-SITE WASTEWATER TREATMENT FACILITY. TANKS CONTAINING HAZARDOUS MATERIAL WOULD BE DECONTAMINATED, DEMOLISHED, AND DISPOSED OF IN AN OFF-SITE SANITARY LANDFILL OR AS SCRAP METAL.

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TANKS CONTAINING NON-HAZARDOUS MATERIAL WOULD NOT BE DECONTAMINATED BUT WOULD BE DISPOSED OF IN AN OFF-SITE SANITARY LANDFILL OR SOLD AS SCRAP.

AN ESTIMATED SEVEN OF THE 47 INSULATED TANKS UTILIZE AN ASBESTOS MATERIAL. THE ASBESTOS INSULATION WOULD BE REMOVED AND DISPOSED IN AN OFF-SITE RCRA LANDFILL. INSULATION FROM THE REMAINING FORTY TANKS WILL BE TESTED, REMOVED, AND DISPOSED IN AN OFF-SITE SANITARY LANDFILL.

IT IS PROPOSED TO DECONTAMINATE THE TANKS THROUGH REPEATED HYDRO-BLASTING AND WATER-WASHING. THE FIRST APPLICATION WOULD INVOLVE THE APPLICATION OF HIGH PRESSURE WATER. THE SECOND PASS, IF REQUIRED, WOULD INVOLVE THE APPLICATION OF A WATER DETERGENT RINSE, WHILE THE FINAL PASS WOULD INVOLVE THE APPLICATION OF A WATER RINSE. LIQUID AND SOLID WASTES FROM THE DECONTAMINATION WOULD BE HANDLED IN THE WASTEWATER TREATMENT SYSTEM.

ALL ABOVE-GROUND PIPES, CONDUIT RACKS, TANK DIKES, AND REVETMENTS WOULD BE CONSIDERED CONTAMINATED AND BE TRANSFERRED TO AN OFF-SITE RCRA STORAGE FACILITY.

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B. BUILDINGS

EACH BUILDING, WITH THE EXCEPTION OF THE OIL BUILDING, WOULD BE DECONTAMINATED, AFTER WHICH ALL BUILDINGS WOULD BE DEMOLISHED. DECONTAMINATION WOULD FIRST INVOLVE VACUUMING AND WIPING. FOR THOSE AREAS REQUIRING ADDITIONAL DECONTAMINATION, GRIT BLASTING WOULD BE UTILIZED. CONTAMINATED WASTE GENERATED DURING BUILDING DECONTAMINATION WOULD BE TREATED ON-SITE USING INCINERATION AND/OR THE WASTEWATER TREATMENT SYSTEM. DEMOLITION RUBBLE FROM THE DECONTAMINATED BUILDINGS WOULD BE DISPOSED OF IN AN OFF-SITE SANITARY LANDFILL. OIL BUILDING RUBBLE AND BUILDING CONTENTS WOULD BE DISPOSED OF SEPARATELY IN AN OFF-SITE RCRA LANDFILL.

C. SOILS AND SEDIMENTS

AS DESCRIBED IN ALTERNATIVE 2, CONTAMINATED SOIL WOULD BE EXCAVATED AS INDICATED BY THE SAMPLING RESULTS. NEARLY ALL OF THE CONTAMINATED SOIL WOULD BE TREATED ON-SITE BY

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SOIL WASHING. HIGHLY CONTAMINATED SOIL AND SEDIMENTS WOULD BE DEWATERED AND INCINERATED ON-SITE. AFTER TREATMENT, THE DECONTAMINATED SOIL WOULD BE RE-DEPOSITED ON-SITE WITH ADDITIONAL CLEAN SOIL.

D. MONITORING

A LONG-TERM GROUND WATER MONITORING PROGRAM WOULD BE PERFORMED QUARTERLY.

ALTERNATIVE 4A. - DECONTAMINATE BUILDINGS AND TANKS, IMPERMEABLE CAP, AND LEACHATE AND GROUND WATER CONTROL

THIS ALTERNATIVE WOULD PROVIDE FOR THE DECONTAMINATION OF TANKS AND BUILDINGS, COLLECTION AND ON-SITE TREATMENT OF LEACHATE AND CONTAMINATED GROUND WATER, AND PARTIAL CAPPING OF THE SITE. THE LEACHATE/GROUND WATER CONTROL SYSTEM IS INTENDED TO PREVENT THE DISCHARGE OF CONTAMINANTS TO THE PASSAIC RIVER. THE ON-SITE GROUND WATER TREATMENT SYSTEM WOULD UTILIZE PHYSICAL-CHEMICAL PRECIPITATION, AIR STRIPPING AND ACTIVATED CARBON ADSORPTION, AND WOULD DISCHARGE TO THE PASSAIC RIVER. THIRTEEN OF THE

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FIFTEEN ACRES AFFECTED (EXCLUDING STRUCTURE FOOTPRINTS) WOULD BE PROVIDED WITH A CLAY/SOIL COVER TO REDUCE SURFACE RUNOFF AND RAINFALL INFILTRATION. THE COVER WOULD CONSIST OF ONE FOOT

OF CLAY AND ONE FOOT OF TOPSOIL, WHICH WOULD BE GRADED. THIS REMEDIAL ALTERNATIVE WOULD ATTAIN THE APPLICABLE AND RELEVANT FEDERAL PUBLIC HEALTH AND ENVIRONMENTAL STANDARDS. HOWEVER, THIS ALTERNATIVE WOULD NOT ALLOW FUTURE REUSE OF THE PROPERTY.

A. TANKS

ALL HAZARDOUS WASTE FROM THE TANKS WOULD BE REMOVED AND TRANSFERRED OFF-SITE FOR APPROPRIATE DISPOSAL, AS DISCUSSED IN ALTERNATIVE 2. NON-HAZARDOUS TANK LIQUIDS WOULD BE TREATED ON-SITE IN THE GROUND WATER TREATMENT SYSTEM. THE EMPTY TANKS WOULD BE DECONTAMINATED AND WOULD BE LEFT ON-SITE. WASTEWATER FROM TANK DECONTAMINATION WOULD ALSO BE TREATED ON-SITE IN THE LEACHATE/GROUND WATER TREATMENT SYSTEM. ALL ABOVE-GROUND PIPES, CONDUIT RACKS, AND INSULATION WOULD BE CLASSIFIED AS HAZARDOUS OR NON-HAZARDOUS AND DISPOSED OF ACCORDINGLY.

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B. BUILDINGS

ALL BUILDINGS, EXCEPT THE OIL BUILDING, WOULD BE DECONTAMINATED AS DESCRIBED IN ALTERNATIVE 3. THE OIL BUILDING WOULD BE DEMOLISHED AND DISPOSED OF IN AN OFF-SITE RCRA LANDFILL ALONG WITH THE CONTAMINATED CONTENTS FROM THE OTHER BUILDINGS.

C. SOILS AND SEDIMENTS

A DOWNGRAIENT SUBSURFACE DRAIN SYSTEM (FIGURE 3) WOULD BE INSTALLED ALONG THE EDGE OF THE PASSAIC RIVER AND ALONG PORTIONS OF THE NORTHERN AND SOUTHERN PROPERTY LINE. THIS DRAIN SYSTEM WOULD BE APPROXIMATELY 1,000 FEET IN LENGTH INCLUDING A SUBSURFACE CONCRETE BARRIER. THE PURPOSE OF THIS DRAIN SYSTEM WOULD BE TO COLLECT LEACHATE AND CONTAMINATED GROUND WATER FOR TREATMENT. THE PURPOSE OF THE CONCRETE WALL IS TO PREVENT TIDAL INTRUSION OF RIVER WATER ONTO THE SITE. THE COLLECTED WASTEWATER WOULD BE TREATED ON-SITE.

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D. MONITORING

A LONG-TERM GROUND WATER MONITORING PROGRAM WOULD BE IMPLEMENTED AND WOULD INCLUDE QUARTERLY SAMPLING.

ALTERNATIVE 4B. - DECONTAMINATE BUILDINGS AND TANKS, PERMEABLE CAP, PASSIVE FLUSHING, AND LEACHATE AND GROUNDWATER TREATMENT

ALTERNATIVE 4B WAS DEVELOPED TO EVALUATE ENHANCED FLUSHING TO CLEANSE THE SATURATED AND UNSATURATED SOILS, AND TO REMOVE THE MORE SIGNIFICANT SOIL CONTAMINATION FROM THE SITE. THE GOAL OF ALTERNATIVE 4B IS TO RESULT IN A SITE THAT COULD BE CONSIDERED FOR FUTURE REUSE AND THAT WOULD ATTAIN ALL APPLICABLE AND RELEVANT STATE REQUIREMENTS FOR THAT REUSE (I.E. ECRA, GROUND WATER QUALITY). THE MAJOR DIFFERENCES BETWEEN ALTERNATIVE 4A AND ALTERNATIVE 4B CONSIST OF SUBSTITUTING A CRUSHED STONE COVER OVER THE OPEN AREAS OF THE SITE INSTEAD OF THE SOIL/CLAY CAP, AND EXCAVATION OF APPROXIMATELY 700 CUBIC YARDS (CY) OF SEDIMENT AND SOILS BENEATH THE TWO LAGOONS. TO BETTER PREPARE

2,000 CY OF HIGHLY CONTAMINATED SOILS AROUND THE SITE WILL BE EXCAVATED. THIS ALTERNATIVE IS AN OPERABLE UNIT. FUTURE STUDIES WILL BE UNDERTAKEN TO EVALUATE FURTHER ENHANCEMENT OF THE SITE CLEANUP TO ATTAIN THIS ALTERNATIVE'S GOAL.

- TANKS, VESSELS, AND BUILDINGS

THE EXISTING ABOVE-GROUND STRUCTURES, INCLUDING BUILDINGS, TANKS, AND STORAGE VESSELS, WOULD BE DECONTAMINATED AS APPROPRIATE. THE OIL BUILDING WOULD BE DEMOLISHED AND DISPOSED OF IN AN OFF-SITE RCRA LANDFILL. HAZARDOUS WASTES WILL BE REMOVED AND TRANSFERRED OFF-SITE FOR APPROPRIATE DISPOSAL, AS DISCUSSED IN ALTERNATIVE 2. ALL NON-HAZARDOUS AQUEOUS WASTES WILL BE TREATED IN AN ON-SITE TREATMENT SYSTEM. NON-HAZARDOUS SOLIDS WILL BE DISPOSED OF AT A SANITARY LANDFILL.

- SOILS AND LAGOON SEDIMENTS

LAGOON SEDIMENTS AND HIGHLY CONTAMINATED SURFACE SOILS WILL BE REMOVED AND TRANSFERRED OFF-SITE FOR DISPOSAL OR TREATMENT

AT AN APPROVED HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL (TSD) FACILITY. THE SURFACE OF THE SITE WILL THEN BE COVERED WITH GRAVEL OR CRUSHED STONE TO ENHANCE NATURAL FLUSHING OF UNDERLYING CONTAMINANTS. THE CONTAMINATED GROUND WATER WOULD BE COLLECTED AND TREATED ON-SITE.

- GROUND WATER

A CONTAINMENT SYSTEM CONSISTING OF A CUT-OFF WALL AND A CONCRETE RETAINING WALL WILL BE CONSTRUCTED PARTIALLY AROUND THE SITE AND ADJACENT TO THE RIVER. BOTH WALLS WILL BE KEYED INTO THE UNDERLYING CLAY LAYER TO PREVENT RIVER WATER FROM ENTERING THE SITE AND CONTAMINANTS FROM MIGRATING OFF-SITE. A TRENCH DRAIN SYSTEM WILL COLLECT CONTAMINATED GROUND WATER. AN ON-SITE WASTEWATER TREATMENT SYSTEM WILL TREAT COLLECTED SURFACE AND GROUND WATER AND DISCHARGE THE TREATED EFFLUENT TO THE PASSAIC RIVER.

- NEW TECHNOLOGIES

AFTER INSTALLATION OF THE ON-SITE SYSTEMS DESCRIBED ABOVE,

A VARIETY OF TECHNOLOGIES WILL BE INVESTIGATED TO FURTHER ENHANCE THE NATURAL FLUSHING ACTION, SO AS TO ATTAIN THE GOAL OF POTENTIAL FUTURE REUSE OF THE SITE. THE TECHNOLOGIES TO BE EVALUATED INCLUDE ACTIVE FLUSHING WITH OR WITHOUT ADDITIVES, IN-SITU BIOLOGICAL TREATMENT, AND IN-SITU VITRIFICATION.

- MONITORING

A LONG-TERM MONITORING PROGRAM WILL BE IMPLEMENTED AFTER THE COMPLETION OF REMEDIAL ACTION TO PROTECT PUBLIC HEALTH AND THE ENVIRONMENT. THE EFFECTIVENESS OF THE SITE REMEDY WILL BE EVALUATED THROUGHOUT THE PLANNED ACTION AND POTENTIAL

FUTURE MODIFICATIONS.

ALTERNATIVE 5 - REMOVE BUILDINGS AND TANKS, AND SITE ENCAPSULATION

THIS ALTERNATIVE WOULD REMOVE ALL TANKS AND BUILDINGS TO APPROPRIATE OFF-SITE HAZARDOUS AND SANITARY WASTE DISPOSAL FACILITIES AND ENCAPSULATE THE ENTIRE SITE. ENCAPSULATION WOULD SEPARATE THE CONTAMINANTS FROM THE SURROUNDING HYDROGEOLOGIC REGIME AND

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WOULD PREVENT FURTHER MIGRATION OF CONTAMINANTS OFF-SITE. THE LATERAL BARRIER WALL WOULD BE KEYED INTO THE CLAY LAYER BENEATH THE SITE TO PROVIDE AN EFFECTIVE BOTTOM BARRIER. LATERAL BARRIER WALLS MAY CONSIST OF A SLURRY WALL, GROUT CURTAINS, OR STEEL SHEET PILING. THE MATERIALS SELECTED FOR USE IN BARRIER CONSTRUCTION SHOULD WITHSTAND ANY CHEMICAL ATTACK BY THE CONTAINED CONTAMINANTS. THIS REMEDIAL ALTERNATIVE WOULD ATTAIN THE APPLICABLE AND RELEVANT FEDERAL PUBLIC HEALTH AND ENVIRONMENTAL STANDARDS. HOWEVER, THE SITE WOULD BE RESTRICTED FROM ANY POTENTIAL FUTURE REUSE.

A. TANKS

ALL WASTE FROM TANKS WOULD BE REMOVED AND TRANSFERRED FOR APPROPRIATE OFF-SITE DISPOSAL AS DISCUSSED IN ALTERNATIVE 2. TANKS HAVING HAZARDOUS RESIDUES WOULD BE DECONTAMINATED AND DEMOLISHED AS DESCRIBED IN ALTERNATIVE 3. THE DECONTAMINATED, DEMOLISHED TANKS WOULD BE DISPOSED OF IN AN OFF-SITE SANITARY LANDFILL OR SOLD AS SCRAP. TANKS CONTAINING NON-HAZARDOUS WASTES WOULD NOT BE DECONTAMINATED BUT WOULD BE DEMOLISHED AND DISPOSED OF IN AN OFF-SITE

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SANITARY LANDFILL OR SOLD AS SCRAP.

B. BUILDINGS

ALL THIRTEEN BUILDINGS LOCATED ON THE SITE WOULD BE CONSIDERED CONTAMINATED AND WOULD BE DEMOLISHED. SERVICE FACILITIES, INCLUDING DUCTWORK, PROCESS PIPING, AND UNIT HEATERS, WOULD ALSO BE CONSIDERED CONTAMINATED AND WOULD BE DEMOLISHED. THE RESULTING RUBBLE AND DEBRIS WOULD BE DISPOSED OF IN AN OFF-SITE RCRA LANDFILL.

C. SOIL AND SEDIMENTS

TO CONTAIN THE REMAINING CONTAMINATED SOILS AND GROUND WATER, THE ENTIRE SITE WOULD BE ENCLOSED WITH AN IMPERMEABLE PERIMETER BARRIER WALL KEYED INTO THE UNDERLYING IMPERMEABLE CLAY LAYER. A PARALLEL CONCRETE BARRIER WOULD BE INSTALLED ADJACENT TO THE IMPERMEABLE BARRIER ALONG THE PASSAIC RIVER TO FURNISH PROTECTION FROM TIDAL ACTION. THE SITE WOULD THEN BE COVERED WITH A RCRA CAP (FIGURE 4). THESE MEASURES WOULD EFFECTIVELY ENCAPSULATE THE

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CONTAMINATED SOIL AND GROUND WATER REMAINING ON THE SITE.

D. MONITORING

A LONG-TERM GROUND WATER MONITORING PROGRAM WOULD BE PERFORMED QUARTERLY.

ALTERNATIVE 6 - REMOVE BUILDING AND TANKS, ON-SITE CHEMICAL
FIXATION OF SOIL, AND ON-SITE RCRA LANDFILL

THIS ALTERNATIVE WOULD REMOVE HAZARDOUS TANKS AND CONTAMINATED BUILDINGS AND TRANSFER THEM TO AN ON-SITE RCRA LANDFILL FACILITY. LIQUID HAZARDOUS WASTE FROM THE TANKS WOULD BE TRANSFERRED OFF-SITE FOR TREATMENT. IN ADDITION, CONTAMINATED SOIL WOULD BE REMOVED, MIXED WITH CHEMICAL ADDITIVES FOR WASTE FIXATION, AND USED AS PART OF THE CONTAINMENT SYSTEM. SINCE THE CONTAMINATED SOILS ON-SITE CONTAIN AN AVERAGE OF LESS THAN ONE-TENTH OF A PERCENT OF ORGANIC CONTAMINANTS, CHEMICAL FIXATION WHICH LIMITS THE MOBILITY OF CHEMICAL CONSTITUENTS IS FEASIBLE.

AS SHOWN IN FIGURE 5, THE ON-SITE RCRA LANDFILL WILL BE ISOLATED

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BY THE SOLIDIFIED SOIL ABOVE AND AROUND ITS PERIMETER, AND BY A DOUBLE 40 MIL SYNTHETIC LINER AND THE EXISTING CLAY LAYER BELOW. A LEACHATE COLLECTION SYSTEM AND LEAK DETECTION SYSTEM WILL BE INSTALLED DURING CONSTRUCTION OF THE LANDFILL. THIS REMEDIAL ALTERNATIVE WOULD ATTAIN THE APPLICABLE AND RELEVANT FEDERAL PUBLIC HEALTH AND ENVIRONMENTAL STANDARDS. HOWEVER, FUTURE SITE USE WOULD BE RESTRICTED.

A. TANKS

THE WASTES REMOVED FROM THE TANKS WOULD BE DISPOSED OF IN AN OFF-SITE TREATMENT FACILITY AS DESCRIBED IN ALTERNATIVE 2. THE EMPTY HAZARDOUS TANKS WOULD BE DEMOLISHED AND DISPOSED OF IN THE ON-SITE RCRA LANDFILL. THE EMPTY NON-HAZARDOUS TANKS WOULD BE DEMOLISHED AND DISPOSED OF OFF-SITE IN A SANITARY LANDFILL.

B. BUILDINGS

THE BUILDINGS WOULD NOT BE DECONTAMINATED BUT DEMOLISHED AND DISPOSED OF IN THE ON-SITE RCRA LANDFILL. IT IS

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ESTIMATED THAT APPROXIMATELY TWO ACRES WOULD BE REQUIRED FOR THE DISPOSAL OF THE DEMOLISHED BUILDINGS AND TANKS.

C. SOIL AND SEDIMENTS

ALL SOIL ABOVE THE CLAY LAYER, INCLUDING THE LAGOON SEDIMENTS, WOULD BE EXCAVATED AND TREATED ON-SITE BY CHEMICAL FIXATION. THE SOIL WOULD BE BLENDED WITH A CHEMICAL BINDER SUCH AS LIME OR SODIUM SILICATE, AND PORTLAND CEMENT. THE BLENDED SOIL WOULD BE DEPOSITED AND CURED IN PLACE. CHEMICAL FIXATION IS EXPECTED TO MINIMIZE LEACHATE GENERATION. THE SITE WOULD THEN BE RESTORED BY REGRADING TO ACCOMMODATE STORM WATER RUNOFF.

D. MONITORING

A LONG-TERM GROUND WATER MONITORING PROGRAM WOULD BE PERFORMED QUARTERLY.

EVALUATION OF ALTERNATIVES

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TO ENSURE THAT THE REMEDIAL OBJECTIVES FOR THE PROTECTION OF PUBLIC HEALTH AND THE ENVIRONMENT ARE FULFILLED, THE ALTERNATIVES DEVELOPED WERE EVALUATED IN TERMS OF TECHNICAL, ENVIRONMENTAL, PUBLIC HEALTH, AND COST-EFFECTIVENESS, AS WELL AS FOR THEIR INSTITUTIONAL REQUIREMENTS WHICH INCLUDE THE APPROPRIATE AND RELEVANT STATE AND FEDERAL ENVIRONMENTAL REGULATIONS.

THE NO ACTION ALTERNATIVE DOES NOT REMOVE OR REDUCE CONTAMINANT LEVELS ON-SITE. THEREFORE, THE RISKS AND EXPOSURE PATHWAYS, WHICH INCLUDE DIRECT CONTACT, INGESTION, AND INHALATION, ARE NOT MITIGATED. IN THE ABSENCE OF CONTAMINANT REMOVAL FROM THE UNSATURATED AND SATURATED ZONES, THE POTENTIAL REMAINS FOR FURTHER CONTAMINATION OF THE SHALLOW AQUIFER AND THE PASSAIC RIVER. TANK LEAKAGE MAY ALSO CONTAMINATE THE SOIL AND GROUND WATER. THIS ALTERNATIVE, WHILE MINIMIZING ACCESS, MAINTAINS THE NEGATIVE ENVIRONMENTAL AND PUBLIC HEALTH IMPACTS AND SO IS UNACCEPTABLE. IN ADDITION, THIS ALTERNATIVE REQUIRES THAT THE SITE IS RESTRICTED FROM ANY FUTURE USE BECAUSE OF ITS ASSOCIATED HEALTH RISK.

ALTERNATIVE 2 INVOLVES THE REMOVAL OF ALL ABOVE-GROUND STRUCTURES

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AND CONTENTS AND CONTAMINATED SOILS FOR OFF-SITE DISPOSAL. WHILE ELIMINATING THE LONG-TERM HEALTH RISKS, THE CONSTRUCTION ACTIVITIES MAY RESULT IN A SHORT-TERM EXPOSURE TO CONTAMINATION THROUGH DIRECT CONTACT AND AIRBORNE PARTICULATE DISPERSION. CONSTRUCTION-RELATED IMPACTS MAY BE MINIMIZED BY IMPLEMENTING AN EFFECTIVE HEALTH AND SAFETY PLAN, A DUST CONTROL AND TRAFFIC CONTROL PLAN, AND A SOIL EROSION AND SEDIMENT CONTROL PLAN. THIS ALTERNATIVE ELIMINATES ANY SITE-RELATED CONTAMINANT CONTRIBUTIONS TO THE SHALLOW AQUIFER OR TO THE RIVER. RESTORATION OF THE SITE BY REPLACING THE CONTAMINATED SOIL WITH CLEAN SOIL INCREASES THE POTENTIAL FOR FUTURE REUSE.

ALTERNATIVE 3 RESULTS IN THE REMOVAL OF CONTAMINATED MATERIALS FROM THE SITE VIA ON-SITE TREATMENT OF MAJOR WASTE STREAMS AND OFF-SITE DISPOSAL OF SOME CONTAMINATED MATERIALS AT A RCRA LANDFILL. THE BENEFITS INCLUDE EVENTUAL ELIMINATION OF EXPOSURE PATHWAYS AND REDUCTION OF CONTAMINATION OF THE GROUND WATER AND THE PASSAIC RIVER. THE POTENTIAL NEGATIVE IMPACTS OF THIS ALTERNATIVE INVOLVE: AIR EMISSIONS FROM THE INCINERATION OPERATION; DIRECT CONTACT, INHALATION, AND INGESTION OF CONTAMINATED MATERIALS DURING HANDLING AND TREATMENT; AND SPILLAGE OF CONTAMINATED

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SOIL INTO THE RIVER VIA EROSION OR MISHANDLING. MEASURES CAN BE TAKEN TO MINIMIZE THESE NEGATIVE IMPACTS, INCLUDING IMPLEMENTATION OF AN AIR EMISSIONS CONTROL PLAN, AN EFFECTIVE HEALTH AND SAFETY PLAN, AND AN SOIL EROSION AND SEDIMENT CONTROL PLAN. OVERALL, THIS ALTERNATIVE PRODUCES POSITIVE ENVIRONMENTAL AND PUBLIC HEALTH IMPACTS AND INCREASES THE POTENTIAL FOR FUTURE SITE REUSE.

ALTERNATIVE 4A INVOLVES OFF-SITE DISPOSAL OF HAZARDOUS MATERIALS, DECONTAMINATION OF TANKS AND BUILDINGS, INSTALLATION OF A CLAY/SOIL SURFACE COVER AND CONCRETE BARRIER, NATURAL FLUSHING OF THE SATURATED SOILS, AND GROUND WATER/LEACHATE COLLECTION AND ON-SITE TREATMENT. THE BENEFITS OF THIS ALTERNATIVE INCLUDE MINIMIZING THE DIRECT CONTACT EXPOSURE PATHWAY OF THE UNSATURATED SOILS VIA CAPPING, REMOVAL OF CONTAMINATION FROM BUILDINGS AND TANKS, MINIMIZING CONSTRUCTION-RELATED IMPACTS BY REDUCING ON-SITE ACTIVITIES, AND A GRADUAL REDUCTION IN GROUND WATER

CONTAMINATION OVER THE LONG TERM. THE NEGATIVE ENVIRONMENTAL AND PUBLIC HEALTH IMPACTS OF THIS ALTERNATIVE INCLUDE AN INCOMPLETE SEALING OF THE SURFACE DUE TO THE PRESENCE OF TANKS AND BUILDINGS, AND THE LONG-TERM OPERATION OF THE GROUND WATER/LEACHATE COLLECTION

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AND TREATMENT SYSTEM. CONTAMINATED, UNSATURATED SOILS WILL REMAIN ON-SITE ESSENTIALLY UNTREATED, MINIMIZING THE POTENTIAL FOR REUSE OF THE SITE.

ALTERNATIVE 4B INCLUDES OFF-SITE DISPOSAL OF HAZARDOUS MATERIALS, DECONTAMINATION OF TANKS AND BUILDINGS, REMOVAL AND OFF-SITE DISPOSAL OF THE CONTAMINATED SEDIMENTS AND SOILS BENEATH AND ADJACENT TO THE TWO LAGOONS AND OTHER 'HOT SPOTS', A CONTAINMENT SYSTEM, A PERMEABLE COVER, PASSIVE FLUSHING, AND ON-SITE TREATMENT OF THE LEACHATE/GROUND WATER. THE BENEFITS OF THIS ALTERNATIVE INCLUDE MINIMIZING THE DIRECT CONTACT EXPOSURE PATHWAY OF THE UNSATURATED SOILS, REMOVAL OF THE CONTAMINATION FROM BUILDINGS AND TANKS, AND MINIMIZING CONSTRUCTION-RELATED IMPACTS. THE MAJOR ADVANTAGES OF THIS ALTERNATIVE OVER ALTERNATIVE 4A IS THE REMOVAL OF THE MORE GROSSLY CONTAMINATED SOILS AND THE PROMOTION OF NATURAL FLUSHING, WHICH WOULD RESULT IN A MORE SIGNIFICANT REDUCTION OF CONTAMINATION IN THE GROUND WATER AND BOTH THE SATURATED AND UNSATURATED SOILS. THE NEGATIVE ENVIRONMENTAL AND PUBLIC HEALTH IMPACTS OF THIS ALTERNATIVE INCLUDE THE LONG-TERM OPERATION OF THE NATURAL FLUSHING AND GROUND WATER TREATMENT PROCESSES. FUTURE STUDIES WILL BE UNDERTAKEN TO FURTHER ENHANCE AND ACCELERATE THE

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THE CLEANSING OF THE SITE. THE IMPLEMENTATION OF THE REMEDIAL ACTIONS UNDER THIS ALTERNATIVE AND ANY SUBSEQUENT REMEDIAL ACTION WILL INCREASE THE POTENTIAL FOR FUTURE REUSE OF THE SITE.

ALTERNATIVE 5 INVOLVES TOTAL SITE ENCAPSULATION AFTER BUILDINGS, TANKS, DIKES, REVETMENTS, TANK CONTENTS, CONDUITS, DUCTWORK, ETC. HAVE BEEN DISPOSED OF OFF-SITE. UNDER THIS ALTERNATIVE, THE EXPOSURE PATHWAYS OF INGESTION, DIRECT CONTACT AND INHALATION ARE ELIMINATED, ALONG WITH SITE-RELATED CONTAMINATION OF THE RIVER. ENCAPSULATION OF THE SITE REDUCES THE AMOUNT OF EXCAVATION REQUIRED, THEREBY REDUCING CONSTRUCTION-RELATED EXPOSURE. THIS ALTERNATIVE, HOWEVER, ONLY CONTAINS THE CONTAMINATED SOIL AND GROUND WATER AND DOES NOT TREAT THEM. UNDER THIS ALTERNATIVE, THE POTENTIAL FOR SITE REUSE IS MINIMAL. IN ADDITION, ENCAPSULATING THE SITE WILL AFFECT THE GROUND WATER FLOW PATTERN, WHICH WOULD HAVE A POSITIVE HEALTH IMPACT AND A NEGATIVE ENVIRONMENTAL IMPACT.

ALTERNATIVE 6 INVOLVES OFF-SITE DISPOSAL OR TREATMENT OF HAZARDOUS TANK CONTENTS, CHEMICAL FIXATION OF THE UNSATURATED AND SATURATED SOIL, AND DISPOSAL OF BUILDING RUBBLE, TANKS, PIPES, DUCTWORK,

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CONDUITS, AND OTHER RELATED MATERIALS IN AN ON-SITE RCRA LANDFILL. WHILE THIS ALTERNATIVE REDUCES THE EXPOSURE PATHWAYS OF DIRECT CONTACT, INGESTION, AND INHALATION, IT DOES NOT ELIMINATE THEM. SECURING CONTAMINATED MATERIALS IN THE ON-SITE RCRA LANDFILL REDUCES THE POTENTIAL FOR SITE REUSE. CHEMICAL FIXATION REDUCES THE PERMEABILITY OF THE SOILS AND HENCE REDUCES CONTAMINANT MIGRATION AND LEACHATE GENERATION. CONSTRUCTION ACTIVITIES WOULD TEMPORARILY INCREASE EXPOSURE BY DIRECT CONTACT, INGESTION, AND INHALATION. THESE IMPACTS, HOWEVER, CAN BE MINIMIZED BY THE IMPLEMENTATION OF AN EFFECTIVE HEALTH AND SAFETY PLAN. IN

ADDITION, HYDROGEOLOGIC PATTERNS WOULD CHANGE DUE TO THE REDUCED PERMEABILITY, THUS PRODUCING A POSITIVE HEALTH IMPACT AND A NEGATIVE ENVIRONMENTAL IMPACT.

COMMUNITY RELATIONS

A PUBLIC MEETING WAS HELD ON SEPTEMBER 4, 1986 TO PRESENT THE RESULTS OF THE REMEDIAL INVESTIGATION AND FEASIBILITY STUDY (RI/FS) AND THE RECOMMENDED ALTERNATIVE. COPIES OF THE FS REPORT WERE DISTRIBUTED TO THE PUBLIC ON AUGUST 21 BUT IT DID NOT INCLUDE ALTERNATIVE 4B PER SE. HOWEVER, MOST OF THE

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COMPONENTS WHICH MAKE UP THIS ALTERNATIVE ARE DISCUSSED IN THE DESCRIPTION OF ALTERNATIVE 4A. THE MODIFICATIONS TO ALTERNATIVE 4A WHICH PRODUCED ALTERNATIVE 4B, AS WELL AS ALTERNATIVE 4B IN TOTO, WERE FULLY EXPLAINED AT THE PUBLIC MEETING. IN ADDITION, A HANDOUT DESCRIBING ALTERNATIVE 4B WAS DISTRIBUTED AT THAT TIME. NO OBJECTIONS TO IT WERE RAISED AT THE MEETING. THE PUBLIC COMMENT PERIOD WAS OPEN UNTIL SEPTEMBER 11. RESPONSES TO ALL COMMENTS RAISED AT THE PUBLIC MEETING AND IN A SUBSEQUENT LETTER ARE INCLUDED IN THE RESPONSIVENESS SUMMARY (ATTACHMENT 1).

RECOMMENDED ALTERNATIVE

IN THE RI/FS, THE SIX ALTERNATIVES WERE EVALUATED IN TERMS OF TECHNICAL, ENVIRONMENTAL, AND PUBLIC HEALTH EFFECTIVENESS AND INSTITUTIONAL REQUIREMENTS, AND A MATRIX WAS DEVELOPED TO COMPARE THE ENVIRONMENTAL ADVANTAGES AGAINST COSTS (TABLE 11). ALTERNATIVE 4 (OR ALTERNATIVE 4A, AS NOW DESIGNATED) WAS DETERMINED TO BE THE MOST COST-EFFECTIVE. IN FURTHER EVALUATING THIS ALTERNATIVE, IT WAS FELT THAT THE MODIFICATIONS WHICH EVENTUALLY LED TO THE DEVELOPMENT OF ALTERNATIVE 4B MAY ACHIEVE AN EVEN MORE

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COST-EFFECTIVE, ENVIRONMENTALLY SOUND ALTERNATIVE.

THE MOST IMPORTANT OF THESE MODIFICATIONS IS THE SUBSTITUTION OF A CRUSHED STONE COVER OVER THE OPEN AREAS OF THE SITE INSTEAD OF THE SOIL/CLAY CAP. THIS PERMEABLE CAP WOULD HAVE NUMEROUS BENEFITS. IT EFFECTIVELY ELIMINATES THE PUBLIC HEALTH RISK DUE TO DIRECT CONTACT OR INGESTION OF SURFACE SOILS, YET ALLOWS RAINWATER TO FLUSH THROUGH THE UNSATURATED AND SATURATED SOILS TO HASTEN THE REMEDIATION OF THE CONTAMINATED SOILS AND GROUND WATER. IT ALSO PROVIDES FLEXIBILITY BY PROVIDING A GOOD WORKING SURFACE FOR TRUCKS OR HEAVY EQUIPMENT, WHILE ALLOWING EASY ACCESS TO THE SURFACE, IF NEEDED, FOR SUBSEQUENT MONITORING OR THE APPLICATION OF NEW TECHNOLOGIES.

ANOTHER SIGNIFICANT MODIFICATION INVOLVES THE EXCAVATION AND REMOVAL OF APPROXIMATELY 700 CUBIC YARDS OF SEDIMENT AND HIGHLY CONTAMINATED SOILS THAT LIE BENEATH OR ADJACENT TO THE TWO LAGOONS. FINALLY, APPROXIMATELY 2,000 CUBIC YARDS OF HIGHLY CONTAMINATED SURFACE SOILS WILL BE REMOVED FOR OFF-SITE DISPOSAL. THE REMOVAL OF THESE SOILS ARE COST-EFFECTIVE IN THAT THEY REDUCE THE VOLUME OF CONTAMINANTS TO BE HANDLED UNDER IN-SITU

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TREATMENT METHODS.

IF THE DESIGN IS OPTIMIZED TO ITS FULL POTENTIAL AND PROPERLY

IMPLEMENTED, THE PASSIVE FLUSHING TECHNIQUE MAY IN ITSELF RESTORE THE SITE TO THE APPROPRIATE CLEANUP LEVELS. HOWEVER, INNOVATIVE TECHNOLOGIES WILL BE EVALUATED TO FURTHER ENHANCE THE ABILITY OF FLUSHING TO CLEANSE THE SOIL OF CONTAMINANTS. ALTHOUGH THE COSTS OF ANY FUTURE REMEDIAL ACTIONS CANNOT NOW BE ACCURATELY ESTIMATED, IT IS BELIEVED THAT THE ADDED COSTS (SEE FOOTNOTE ON TABLE 8) WOULD STILL MAKE THIS REMEDIAL ALTERNATIVE COST-EFFECTIVE IN COMPARISON TO THE OTHERS. SHOULD NONE OF THE METHODS EVALUATED UNDER ALTERNATIVE 4B BE SUCCESSFUL IN ATTAINING THE APPLICABLE CLEANUP LEVELS, THE SITE WOULD STILL BE NEARER TO THESE LEVELS THAN UNDER ANY OTHER ALTERNATIVE, EXCEPT TOTAL EXCAVATION AND REMOVAL OF CONTAMINATED MATERIAL WHICH IS PROHIBITIVELY EXPENSIVE.

THEREFORE, ALTERNATIVE 4B WAS SELECTED AS THE RECOMMENDED ALTERNATIVE AND INCLUDES THE FOLLOWING COMPONENTS:

- TANKS, VESSELS, AND BUILDINGS

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THE EXISTING ABOVE-GROUND STRUCTURES, INCLUDING BUILDINGS, TANKS, AND PROCESS VESSELS, WILL BE DECONTAMINATED, AS APPROPRIATE. THE OIL BUILDING WOULD BE DEMOLISHED AND DISPOSED OF IN AN OFF-SITE RCRA LANDFILL. HAZARDOUS WASTES WILL BE REMOVED OFF-SITE TO AN APPROVED HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL (TSD) FACILITY. ALL NON-HAZARDOUS AQUEOUS WASTES WILL BE TREATED IN AN ON-SITE WASTEWATER TREATMENT SYSTEM. NON-HAZARDOUS SOLIDS WILL BE DISPOSED OF AT A SANITARY LANDFILL.

- SOILS AND LAGOON SEDIMENTS

LAGOON SEDIMENTS AND HIGHLY CONTAMINATED SOILS WILL BE REMOVED AND TRANSPORTED TO AN APPROVED HAZARDOUS WASTE TSD FACILITY. THE SURFACE OF THE SITE WILL THEN BE COVERED WITH GRAVEL OR CRUSHED STONE TO ENHANCE NATURAL FLUSHING OF UNDERLYING CONTAMINANTS IN THE SOIL AND GROUND WATER, BEFORE COLLECTION AND TREATMENT.

- GROUND WATER

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A CONTAINMENT SYSTEM CONSISTING OF A CUT-OFF WALL AND A CONCRETE RETAINING WALL WILL BE CONSTRUCTED PARTIALLY AROUND THE SITE AND ADJACENT TO THE RIVER. BOTH WALLS WILL BE KEYED INTO THE UNDERLYING CLAY LAYER TO PREVENT RIVER WATER FROM ENTERING THE SITE AND CONTAMINANTS FROM MIGRATING OFF-SITE. A DOWN-GRADIENT DRAIN SYSTEM WILL COLLECT CONTAMINATED GROUND WATER. AN ON-SITE WASTEWATER TREATMENT SYSTEM WILL TREAT COLLECTED SURFACE AND GROUND WATER AND DISCHARGE THE TREATED EFFLUENT TO THE PASSAIC RIVER.

- NEW TECHNOLOGIES

AFTER INSTALLATION OF THE ON-SITE SYSTEMS DESCRIBED ABOVE, A VARIETY OF TECHNOLOGIES WILL BE INVESTIGATED TO FURTHER ENHANCE THE NATURAL FLUSHING ACTION. THE TECHNOLOGIES WHICH WOULD BE EVALUATED INCLUDE ACTIVE FLUSHING WITH OR WITHOUT ADDITIVES, IN-SITU BIOLOGICAL TREATMENT, IN-SITU VITRIFICATION, ETC.

- MONITORING

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A LONG-TERM MONITORING PROGRAM WILL BE IMPLEMENTED AFTER THE COMPLETION OF REMEDIAL ACTION TO PROTECT PUBLIC HEALTH AND THE ENVIRONMENT. THE EFFECTIVENESS OF THE SITE REMEDY WILL BE EVALUATED THROUGHOUT THE PLANNED ACTION AND ANY POTENTIAL FUTURE MODIFICATIONS.

OPERABLE UNITS

THE RECOMMENDED ALTERNATIVE WILL BE THE FIRST OPERABLE UNIT FOR THIS SITE. DEPENDING ON THE RESULTS OF THE STUDY TO ENHANCE THE NATURAL FLUSHING PROCESS, A FUTURE OPERABLE UNIT MAY IMPLEMENT THE STUDY FINDINGS.

COMPLIANCE WITH OTHER ENVIRONMENTAL LAWS AND REQUIREMENTS

THE RECOMMENDED ALTERNATIVE, AS ENVISIONED, WOULD BE IN FULL COMPLIANCE WITH ALL APPLICABLE EXISTING ENVIRONMENTAL STATUTES, SAVE THE EXCEPTIONS DISCUSSED BELOW.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) CAP, 40 CFR PART 264

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WHILE THE IMPLEMENTATION OF THE RECOMMENDED ALTERNATIVE WILL NOT MEET THE RCRA CLOSURE REQUIREMENTS FOR A RCRA SUBTITLE C CAP, THIS ALTERNATIVE IS THE FIRST OPERABLE UNIT AND NOT THE FINAL REMEDY.

THE RECOMMENDED ALTERNATIVE INCLUDES A PERMEABLE LAYER AT THE SURFACE. THIS PERMEABLE LAYER WOULD BE INSTALLED TO ENHANCE NATURAL FLUSHING, WHICH WILL CLEANSE THE SITE OF CONTAMINANTS. MEANWHILE, THIS TYPE OF PROTECTIVE COVER WILL PREVENT DIRECT CONTACT EXPOSURE.

FUTURE STUDIES WILL EVALUATE TECHNOLOGIES TO FURTHER ENHANCE AND ACCELERATE NATURAL FLUSHING UNDER ALTERNATIVE 4B. THE GOAL OF ALTERNATIVE 4B AND FUTURE ACTIONS WILL BE TO ATTAIN CLEANUP CRITERIA SO AS TO RESULT IN A SITE THAT COULD BE CONSIDERED FOR REUSE. SHOULD THESE CRITERIA NOT BE MET, THE NEED TO CLOSE THE SITE UNDER RCRA WILL BE RE-EVALUATED.

OPERATION AND MAINTENANCE

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ALL THE REMEDIAL COMPONENTS OF THE RECOMMENDED ALTERNATIVE REQUIRE OPERATION AND MAINTENANCE (O&M) TO VARYING DEGREES. THE WASTEWATER TREATMENT FACILITY, THE SURFACE COVER, AND THE COLLECTION SYSTEM MUST BE OPERATED AND MAINTAINED. THE BUILDINGS AND TANKS MUST BE PERIODICALLY INSPECTED. O&M WILL ALSO INCLUDE LONG-TERM MONITORING. THE MONITORING PROGRAM WILL INCLUDE SAMPLING OF GROUND WATER, AIR, AND TREATED EFFLUENT PRIOR TO DISCHARGE TO THE PASSAIC RIVER. THE TOTAL ANNUAL O&M COST FOR THIS PROGRAM IS ESTIMATED TO BE \$209,000.

TABLES, MEMORANDA, ATTACHMENTS

RESPONSIVENESS SUMMARY

850090197

FOR THE
COMPLETION OF THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY
AT THE
SYNCON RESINS SITE
KEARNY
HUDSON COUNTY
NEW JERSEY

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THIS COMMUNITY RELATIONS RESPONSIVENESS SUMMARY, PREPARED AS PART OF THE RECORD OF DECISION (ROD), IS DIVIDED INTO THE FOLLOWING SECTIONS:

I. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS

THIS IS A BRIEF HISTORY OF COMMUNITY INTEREST CONCERNING THE SYNCON RESINS SITE AND A SUMMARY OF COMMUNITY RELATIONS ACTIVITIES CONDUCTED BY THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP) AND THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA) PRIOR TO AND DURING THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS).

II. SUMMARY OF MAJOR QUESTIONS AND COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD AND NJDEP'S RESPONSES

THIS IS A SUMMARY OF MAJOR QUESTIONS AND COMMENTS DIRECTED TO NJDEP DURING THE SEPTEMBER 4, 1986 PUBLIC MEETING REGARDING THE RESULTS OF THE FEASIBILITY STUDY AND SENT TO NJDEP DURING THE PUBLIC COMMENT PERIOD. NJDEP'S RESPONSES ARE INCLUDED IN THIS SECTION.

III. REMAINING CONCERNS

THIS IS A DISCUSSION OF REMAINING COMMUNITY CONCERNS OF WHICH NJDEP AND USEPA SHOULD BE AWARE IN CONDUCTING THE REMEDIAL DESIGN AND

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REMEDIAL ACTIONS AT THE SYNCON RESINS SITE.

ATTACHMENTS

ATTACHMENT A

ATTENDANCE SHEET AND INFORMATION PACKAGE DISTRIBUTED AT THE FEBRUARY 21, 1984 PUBLIC MEETING.

ATTACHMENT B

ATTENDANCE SHEET AND INFORMATION PACKAGE DISTRIBUTED AT THE APRIL 25, 1985 PUBLIC MEETING.

ATTACHMENT C

ATTENDANCE SHEET AND INFORMATION PACKAGE DISTRIBUTED AT THE SEPTEMBER 4, 1986 PUBLIC MEETING.

ATTACHMENT D

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COPY OF THE LETTER RECEIVED BY NJDEP DURING THE PUBLIC COMMENT PERIOD.

I. BACKGROUND ON COMMUNITY INVOLVEMENT AND CONCERNS

CONCERN FOCUSING ON THE SYNCON RESINS SITE PRIOR TO THE RI/FS BEGAN IN 1976 AFTER THE NJDEP UNCOVERED VIOLATIONS OF THE CLEAN WATER ACT AT THIS FACILITY. MEDIA ATTENTION WAS GENERATED AND A GROUP CALLED

850090198

THE KEARNY ENVIRONMENTAL COMMITTEE OF CONCERNED CITIZENS WAS ESTABLISHED. AT THIS TIME, THIS GROUP FOCUSED ATTENTION ON THE PRESENCE AND HAZARDS OF CHEMICAL WASTES IN KEARNY. THEY WERE CONCERNED THAT THEIR COMMUNITY MIGHT SERVE AS A WASTE STORAGE CENTER FOR THE ENTIRE REGION. ON SEPTEMBER 30, 1981 THE NJDEP PROVIDED KEARNY CITIZENS AN OPPORTUNITY TO COMMENT ON THE DEVELOPMENT OF A NEW SITE FOR A HAZARDOUS WASTE STORAGE AND TRANSPORTATION OPERATION. AFTER REVIEWING PUBLIC COMMENT, THE NJDEP DID NOT APPROVE PLANS FOR DEVELOPMENT OF THIS OPERATION.

ON DECEMBER 20, 1982 THE USEPA ISSUED A PRESS RELEASE NOTING THAT FUNDS HAD BEEN ALLOCATED FOR CLEANUP WORK AT TWO NEW JERSEY HAZARDOUS WASTE SITES. ONE OF THOSE WAS THE SYNCON RESINS SITE AND A BRIEF DESCRIPTION OF THE PROBLEMS AT THE SITE WAS INCLUDED. IN PARTICULAR, IT WAS STATED THAT \$2 MILLION WOULD BE SPENT TO REMOVE

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APPROXIMATELY 10,000 DRUMS ON SITE.

ON SEPTEMBER 9, 1983 A COMMUNITY RELATIONS PLAN (CRP) WAS COMPLETED FOR THIS SITE. IN JANUARY 1984 THE NJDEP ATTEMPTED TO LOCATE ADDITIONAL CITIZENS AND CITIZEN GROUPS INTERESTED IN THE SYNCON RESINS SITE. MAYOR HENRY HILL RESPONDED AND COMPLETED OUR COMMUNITY RELATIONS RESPONSE FORM, SUPPLYING NUMEROUS NAMES TO COMPLIMENT OUR CRP CONTACT LIST.

PRIOR TO THE INITIATION OF THE INITIAL REMEDIAL MEASURE (IRM) FOR THE DRUM REMOVAL AT THIS SITE, A SERIES OF MEETINGS AND BRIEFING SESSIONS WERE HELD. ON FEBRUARY 10, 1984 A BRIEFING TO KEEP KEARNY OFFICIALS INFORMED AS TO THE STATUS OF THE SYNCON RESINS CLEANUP WAS HELD. THE PROJECT WAS OUTLINED AND TOWN OFFICIALS INQUIRED AND WERE INFORMED ABOUT CONTINGENCY PLANS, WASTE TRANSPORTATION ROUTES AND MATERIAL HANDLING. ALL QUESTIONS WERE ANSWERED DIRECTLY OR COMMITMENTS WERE MADE BY NJDEP TO PROVIDE ANSWERS. A SHORT DISCUSSION FOLLOWED CONCERNING THE UPCOMING PUBLIC MEETING SCHEDULED FOR FEBRUARY 21, 1984.

THE PUBLIC MEETING ON THE REMOVAL OF WASTE STORAGE DRUMS FROM THE

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SYNCON RESINS HAZARDOUS WASTE SITE WAS HELD ON FEBRUARY 21, 1984. NOTIFICATION OF THE MEETING WAS ACCOMPLISHED THROUGH PRESS RELEASES AND A DIRECT MAILING OF NOTICES TO MUNICIPAL, COUNTY, STATE AND FEDERAL OFFICIALS, AS WELL AS TO ALL CONCERNED CITIZENS AND CITIZEN GROUPS. APPROXIMATELY 20 PEOPLE ATTENDED THE MEETING AND AGENDAS AND INFORMATION PACKAGES WERE DISTRIBUTED. (SEE ATTACHMENT A.). MAJOR ISSUES AND CONCERNS RAISED DURING THE MEETING AND RESPONSES GIVEN INCLUDED:

QUESTION: WHO WILL REMOVE WASTE AND DO THE SOIL TESTS?

RESPONSE: THE DRUM DISPOSAL WILL BE HANDLED BY THREE CONTRACTORS: APPLIED TECHNOLOGY, AETC, INC. AND S & W WASTE. SOIL CONDITIONS WILL BE ADDRESSED IN A SUBSEQUENT RI/FS.

QUESTION: WILL SITES NEIGHBORING (SYNCON) BE REGULATED?

RESPONSE: THE HAZARDOUS SITE MITIGATION ADMINISTRATION DOES NOT REGULATE THESE FACILITIES BUT OTHER UNITS WITHIN THE NJDEP DO.

QUESTION: WHAT WILL HAPPEN TO THE SYNCON PROPERTY AFTER THE CLEANUP?

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RESPONSE: AT THIS TIME WE CANNOT ANSWER SPECIFICALLY SINCE THE SITE IS IN LITIGATION AS TO OWNERSHIP.

ON FEBRUARY 24, 1984 THE NJDEP HELD A PRESS BRIEFING AT THE SYNCON SITE TO EXPLAIN PROCEDURES THAT WILL BE USED DURING THE CLEANUP PROJECT. THE KEARNY HEALTH OFFICER WAS QUOTED IN A STAR LEDGER ARTICLE OF FEBRUARY 25, 1984 SAYING, 'WE'RE PLEASED WITH THE SETUP OF THE SAFETY FEATURE OF THE WHOLE PROJECT.'

A PRESS RELEASE WAS ISSUED BY THE NJDEP ON SEPTEMBER 12, 1984 ANNOUNCING COMPLETION OF THE IRM. A TOTAL OF 12,824 DRUMS WERE REMOVED AT A COST OF \$2 MILLION DOLLARS WITH FEDERAL SUPERFUND PAYING 90% AND THE STATE SPILL FUND PAYING 10%. (ACTUAL CLEANUP COST AMOUNTED TO \$2.4 MILLION DOLLARS.).

THROUGHOUT THE IRM, THE NJDEP RECEIVED NUMEROUS REQUESTS FOR INFORMATION CONCERNING PROGRESS OF THE CLEAN-UP. RESPONSES WERE GIVEN BOTH VERBALLY OVER THE TELEPHONE OR IN WRITING BY THE NJDEP, BUREAU OF COMMUNITY RELATIONS. IN ADDITION, THE NJDEP SENT OUT AN EARLY MEETING NOTICE IN MAY 1984 TO ADVISE CONCERNED CITIZENS THAT WE WERE PLANNING TO SCHEDULE

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A PUBLIC MEETING TO DISCUSS THE INITIATION OF THE RI/FS; THE SPECIFIC DATE AND LOCATION TO BE ANNOUNCED IN A SUBSEQUENT NOTICE. THIS CORRESPONDENCE ALSO EMPHASIZED STAGES IN THE REMEDIAL PROCESS IN WHICH NJDEP SOLICITS THE BENEFIT OF PUBLIC COMMENT BEFORE SITE DECISIONS ARE MADE.

ON APRIL 25, 1985 THE NJDEP HELD A PUBLIC MEETING TO DISCUSS THE INITIATION OF THE RI/FS AT THIS SITE. NOTIFICATION OF THE MEETING WAS ACCOMPLISHED THROUGH PRESS RELEASES AND DIRECT MAILING OF NOTICES TO MUNICIPAL, COUNTY, STATE AND FEDERAL OFFICIALS AS WELL AS CONCERNED CITIZENS AND CITIZEN GROUPS. APPROXIMATELY 11 PEOPLE ATTENDED THE MEETING AND EACH RECEIVED AN AGENDA, FACT SHEET AND AN OVERVIEW OF THE COMMUNITY RELATIONS PROGRAM. (SEE ATTACHMENT B.). ISSUES AND CONCERNS RAISED DURING THE MEETING AND RESPONSES GIVEN INCLUDED:

QUESTION: WHAT DO YOU PLAN TO DO WITH THE TANKS?

RESPONSE: IT IS PREMATURE TO SAY AT THIS TIME BUT THERE ARE SEVERAL POSSIBLE OPTIONS. 1) IF TANKS CAN BE SUFFICIENTLY DECONTAMINATED THEN THEY MAY REMAIN ON-SITE. 2) IF THE TANKS CAN'T BE SUFFICIENTLY DECONTAMINATED THEN THEY MAY HAVE TO BE

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CUT UP AND DISPOSED OF AS HAZARDOUS WASTE.

3) AS AN ADDITIONAL BUT VERY EXPENSIVE ALTERNATIVE, IT MAY BE POSSIBLE TO REMOVE WHOLE TANKS.

QUESTION: DO YOU KNOW THE DEPTH OF SOIL CONTAMINATION?

RESPONSE: THAT WILL BE DETERMINED IN THE RI/FS.

COMMENT: IT SEEMS LIKE YOU SHOULD DIKE AND PUT AN IMPERVIOUS COVER OVER THE SITE.

RESPONSE: THAT MAY BE AN OPTION. IT WOULD BE PREMATURE TO MAKE THAT DECISION BEFORE COMPLETING THE STUDY. THERE WILL BE ANOTHER PUBLIC MEETING AT THE END OF THE RI/FS WHEN DECISIONS BEGIN TO BE MADE. THAT IS REALLY THE MOST IMPORTANT MEETING IN THIS PROCESS. MEANWHILE, IF YOU HAVE QUESTIONS AFTER THIS MEETING YOU CAN CONTACT THE BUREAU OF COMMUNITY RELATIONS (NJDEP).

QUESTION: DO YOU HAVE ANY IDEA HOW FAR THE PLUME HAS GONE THROUGH THE AQUIFER? KEARNY HAS SIX SQUARE MILES OF CONTAMINATED AQUIFER (THE LARGEST IN THE WORLD)).

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RESPONSE: THAT WILL BE DETERMINED IN THE RI/FS.

QUESTION: DO YOU SEE ANY EVIDENCE OF LOW GRADE TOXICITY IN YOUR WORKERS?

RESPONSE: NO. WE DO HAVE A STRINGENT MEDICAL SURVEILLANCE PROGRAM TO MONITOR OUR WORKERS' HEALTH.

II) SUMMARY OF MAJOR QUESTIONS AND COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD AND NJDEP'S RESPONSES
ON AUGUST 21, 1986 THE RI/FS WAS PLACED IN THE FOLLOWING REPOSITORIES FOR PUBLIC REVIEW: KEARNY TOWN HALL, KEARNY PUBLIC LIBRARY, HUDSON COUNTY LAW LIBRARY IN JERSEY CITY AND THE NJDEP, DIVISION OF HAZARDOUS SITE MITIGATION IN TRENTON. THE NJDEP ISSUED A PRESS RELEASE AND CONTACTED LOCAL OFFICIALS, AS WELL AS INTERESTED CITIZEN GROUPS REGARDING THE AVAILABILITY OF THE RI/FS AT THESE REPOSITORIES.

ON SEPTEMBER 4, 1986 THE NJDEP HELD A PUBLIC MEETING TO PRESENT THE RESULTS OF AND TO RECEIVE COMMENTS/QUESTIONS REGARDING THE RI/FS. NOTIFICATION OF THIS MEETING WAS ALSO ACCOMPLISHED THROUGH PRESS

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RELEASES AND DIRECT MAILING OF NOTICES TO MUNICIPAL, COUNTY, STATE AND FEDERAL OFFICIALS, AS WELL AS TO CONCERNED CITIZENS AND CITIZEN GROUPS. APPROXIMATELY 25 PEOPLE ATTENDED THIS MEETING AND EACH RECEIVED AN AGENDA, FACT SHEET, AN OVERVIEW OF THE COMMUNITY RELATIONS PROGRAM AND STEPS IN A MAJOR HAZARDOUS WASTE SITE CLEANUP. (SEE ATTACHMENT C.). RESPONSES TO QUESTIONS AND COMMENTS, FOR THE MOST PART, WERE STATED AT THE MEETING. THE PUBLIC COMMENT PERIOD WAS HELD FROM AUGUST 21, 1986 THROUGH SEPTEMBER 11, 1986. IN ADDITION TO THE COMMENTS MADE DURING THE PUBLIC MEETING, ONE LETTER WAS RECEIVED BY THE NJDEP DURING THIS PERIOD. (SEE ATTACHMENT D.). THIS WRITTEN COMMENT IS INCLUDED IN THIS SECTION.

DURING THE PUBLIC MEETING, MR. THOMAS GRANGER, MANAGER OF PROJECTS OF EBASCO SERVICES, INC. PRESENTED SIX REMEDIAL ALTERNATIVES FOR LONG-TERM SITE REMEDIATION. THESE ARE:

- MINIMAL ACTION.
- REMOVAL OF BUILDINGS, TANKS AND SOIL FOR OFF-SITE DISPOSAL.
- REMOVAL OF BUILDINGS * AND TANKS, ON-SITE INCINERATION AND ON-SITE SOIL WASHING.

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- DECONTAMINATION OF BUILDINGS AND TANKS AND LEACHATE AND GROUND WATER CONTROL.
- REMOVAL OF BUILDINGS * AND TANKS AND SITE ENCAPSULATION.
- REMOVAL OF BUILDINGS AND TANKS, ON-SITE CHEMICAL FIXATION OF SOIL AND CONSTRUCTION OF AN ON-SITE RCRA LANDFILL.

- * BUILDINGS AND/OR TANKS ARE DECONTAMINATED PRIOR TO REMOVAL AS SOLID NON-HAZARDOUS WASTE TO A SANITARY LANDFILL.

MR. RICHARD SALKIE, P.E., ACTING DIRECTOR OF NJDEP'S DIVISION OF HAZARDOUS SITE MITIGATION, THEN DISCUSSED NJDEP'S RECOMMENDED

ALTERNATIVE WHICH IS PRIMARILY A COMPOSITE OF VARIOUS COMPONENTS OF THE ALTERNATIVES (MODIFIED ALTERNATIVE #4) PREVIOUSLY MENTIONED. THIS INCLUDES DECONTAMINATION OF TANKS, VESSELS AND BUILDINGS, EXCAVATION PLUS OFF-SITE DISPOSAL OF LAGOON SEDIMENTS, SITE COVERING WITH CRUSHED STONE, INSTALLATION OF A DOWNGRAIENT COLLECTION TRENCH TO COLLECT WATER TO BE TREATED ON-SITE AND DISCHARGED TO THE PASSAIC RIVER, A CONTINUOUS 30-YEAR MONITORING PROGRAM, IMPROVEMENT OF SITE ACCESS AND FENCE CONDITIONS AND ADDITIONAL STUDIES TO EVALUATE A VARIETY OF TECHNOLOGIES TO ENHANCE NATURAL FLUSHING/TREATMENT/DESTRUCTION OF CONTAMINANTS. COMMENTS AND QUESTIONS WERE THEN RECEIVED FROM THE AUDIENCE. IN

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ADDITION TO DIRECTOR SALKIE, AND MR. GRANGER, OTHER REPRESENTATIVES OF NJDEP WERE PRESENT AND RESPONDED TO QUESTIONS RELEVANT TO AREAS OF THEIR EXPERTISE.

IN GENERAL, THE TONE OF THE COMMENTS AT THE PUBLIC MEETING AND OF THOSE RECEIVED DURING THE PUBLIC COMMENT PERIOD WAS VERY POSITIVE. SEVERAL INDIVIDUALS, INCLUDING KEARNY MAYOR HENRY J. HILL AND NEW JERSEY ASSEMBLYMAN CHARLES CATRILLO, EXPRESSED APPRECIATION FOR NJDEP'S PRESENTATION. MARGARET HALLOWAY, PRESIDENT OF THE KEARNY ENVIRONMENTAL COMMITTEE OF CONCERNED CITIZENS, EXPRESSED SUPPORT WITH SOME RESERVATION FOR A REMEDY TO THE CONTAMINATION. THERE WERE, HOWEVER, SOME AREAS OF CONCERN. THESE ARE SUMMARIZED BY SUBJECT AS FOLLOWS:

- MOVEMENT AND EXTENT OF CONTAMINATION.
- COSTS OF ALTERNATIVES.
- SITING OF AN INCINERATOR IN KEARNY FOR THIS SITE OR OTHER USES.
- SITE SECURITY - PAST, PRESENT, AND FUTURE.
- FUTURE USE OF THE SITE.
- OTHER ISSUES.

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MOVEMENT AND EXTENT OF CONTAMINATION

QUESTION: WHAT IS THE AMOUNT OF CONTAMINATION (POISON) ALLOWED INTO THE WATER? IS THE CONTAMINATION STILL DISCHARGING INTO THE PASSAIC RIVER?

RESPONSE: THE SURFACE WATER CRITERIA IS SET FORTH IN THE NJDEP EFFLUENT LIMITATIONS FOR DISCHARGE INTO THE PASSAIC RIVER (NJAC 7:9-5) AND THE GROUND WATER CRITERIA IS BASED ON THE GW3 CLASS AQUIFER (NJAC 7:9-6). PRESENTLY, THE CONTAMINATED GROUND WATER IS DISCHARGING INTO THE SURFACE WATER (PASSAIC RIVER) THROUGH NORMAL AQUIFER MOVEMENT. NJDEP PROPOSES TO CONSTRUCT A CONCRETE WALL TO CONTAIN THE MOVEMENT OF THE CONTAMINATED WATER AND CONTROL RIVER TIDE. THEN THE CONTAMINATED WATER WILL BE TREATED ON-SITE TO MEET THE REQUIRED STANDARDS PRIOR TO RELEASE INTO THE PASSAIC RIVER.

QUESTION: WHAT DO THE MEASUREMENTS IN THE RI/FS REGARDING MERCURY AND OTHER CONTAMINANTS MEAN? WHAT MEASUREMENT IS USED TO EVALUATE EACH CONTAMINANT? WHAT DOES THE MEASUREMENT ND-1400 MEAN?

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RESPONSE: THE LEVELS OF CONTAMINANTS INDICATE THE AMOUNTS THAT EXISTED ON THE SITE AT THE TIME OF THE SAMPLING. THE MEASUREMENTS OF EACH CONTAMINANT ARE IN PARTS PER BILLION (PPB) WITHIN THE SATURATED SOIL. THE ND-1400 MEANS THAT LEVELS OF THE

CONTAMINANTS WERE FOUND WITHIN THE RANGE OF NOT DETECTABLE TO 1400 PPB.

QUESTION: I AM CURIOUS HOW SUCH HIGHLY TOXIC POISONS AS MERCURY, CYANIDE, LEAD AND ARSENIC WERE USED IN A PAINT FACTORY? ARE THESE MATERIALS NORMALLY ASSOCIATED WITH PAINT PRODUCTION?

RESPONSE: IT WAS FOUND THAT THE CONTAMINATION ON SITE, IN FACT, DID RELATE VERY WELL WITH THE PROCESSES CONDUCTED AT SYNCON RESINS. MERCURY, CYANIDE, LEAD AND ARSENIC ARE PART OF THE CATALYSTS UTILIZED IN THE RESINS MANUFACTURING PROCESS, REPROCESSING OF RESINS, OR VARNISH MANUFACTURING. THE OTHER CONTAMINANTS (I.E., PESTICIDES) WERE PROBABLY BROUGHT ON SITE FOR A SPECIFIC USE (PEST CONTROL).

QUESTION: TO WHAT LOCATION WERE THE 12,000-PLUS DRUMS REMOVED? WERE ANY OF THE DRUMS DISPOSED OF IN KEARNY?

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RESPONSE: THE DRUMS WERE REMOVED TO LICENSED HAZARDOUS WASTE FACILITIES WITHIN NEW JERSEY AND OUT OF STATE. NONE OF THE DRUMS WERE DISPOSED OF IN KEARNY.

QUESTION: HOW MANY FEET BELOW THE SURFACE IS THERE EVIDENCE OF DEFINITE CONTAMINATION?

RESPONSE: THE CONTAMINATION IS FOUND MAINLY IN THE FIRST TEN FEET. A CLAY LAYER IS FOUND AT THAT POINT UNDER THE SURFACE, PROVIDING A BARRIER TO PREVENT FURTHER MIGRATION OF THE CONTAMINANTS. IN THIS AREA, THE GROUNDWATER IS FOUND ABOUT TWO FEET BELOW THE GROUND'S SURFACE.

QUESTION: CAN YOU GIVE AN IDEA OF HOW LONG IT WILL TAKE TO REMOVE THE CONTAMINANTS FOUND BELOW THE SURFACE?

RESPONSE: THE PROPOSED ALTERNATIVE WILL TAKE THE WATER THAT PASSES THROUGH THE SITE AND PREVENT IT FROM LEAVING THE SITE. THE WATER WILL BE COLLECTED AND TREATED ON-SITE TO MEET RELEVANT STANDARDS PRIOR TO DISCHARGE INTO THE PASSAIC RIVER. THE

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LENGTH OF TIME REQUIRED, BY THIS METHOD, TO REMOVE THE CONTAMINANTS WILL BE DETERMINED BY TREATABILITY TESTS AND FURTHER IDENTIFICATION AND EVALUATION OF VARIOUS TECHNOLOGIES.

QUESTION: FROM THE SOIL DATA IN THE REPORT, IT APPEARS THERE ARE AREAS OF HEAVY CONTAMINATION (HOT SPOTS). DO YOU PLAN TO DO ADDITIONAL CHARACTERIZATION OF THOSE SITES TO SEE IF IT IS NECESSARY TO REMOVE CONTAMINATED SOIL REMOVAL?

RESPONSE: WE WILL DO ADDITIONAL CHARACTERIZATION. THEN WE WILL MAKE A DETERMINATION AS TO WHETHER THERE WILL BE SOME REMOVAL IN SPECIFIC HOT SPOTS OR WHETHER ALL THE HIGHLY CONTAMINATED AREAS WILL BE REMOVED. THAT WILL BE EVALUATED DURING THE CONCEPTUAL DESIGN IN TERMS OF COST EFFECTIVENESS. ALSO, WE WILL CONSIDER WHETHER IT IS MOST COST EFFECTIVE IN ACHIEVING THE OBJECTIVES TO RUN THE TREATMENT SYSTEM WITH NATURAL FLUSHING FOR A LONG PERIOD OF TIME OR JUST TO REMOVE THE CONTAMINATED SOIL AT THE BEGINNING OF THE PROJECT.

QUESTION: WILL THE CHARACTERIZATION OF CONTAMINANTS BE DONE PRIOR TO ANY WORK ON THIS SITE?

RESPONSE: FOLLOWING THE SIGNING OF THE ROD (RECORD OF DECISION) WITH EPA, WE WILL BEGIN THE DEVELOPMENT OF THE CONCEPTUAL DESIGN. AT THAT STAGE, FURTHER CHARACTERIZATION AND THE FULL EVALUATION OF THAT AREA WILL BE MADE. THERE WAS A STRONG FEELING AMONG NJDEP STAFF THAT PART OF THE CONTAMINATED SOIL (HOT SPOTS) SHOULD BE REMOVED.

QUESTION: IS THE GENERAL INTENT TO FLUSH THE CONTAMINATED SOIL RATHER THAN REMOVE IT?

RESPONSE: THE EXPECTATION IS THAT SOME CONTAMINATED MATERIAL WILL BE REMOVED. PRIOR TO FULL EVALUATION BY THE ENGINEERS, I CANNOT TELL YOU HOW MUCH SOIL, WHAT AREA OF SOIL WILL BE REMOVED, OR EVEN GUARANTEE THAT THE SOIL WILL BE REMOVED.

QUESTION: A NEWSPAPER ARTICLE MENTIONED THAT AFTER THE REMOVAL OF THE 12,000-PLUS BARRELS THAT TWO BARRELS REMAINED. WE WOULD LIKE TO KNOW WHY YOU FORGOT THE TWO, SINCE THEY WERE VISIBLE FROM THE STREET AND ONLY TEN FEET FROM THE FENCE?

RESPONSE: AS FAR AS I CAN TELL FROM THE PICTURE (WITH THE ARTICLE) AND YOUR DESCRIPTION, THOSE BARRELS ARE FULL OF THE CUTTINGS TAKEN FROM THE GROUND DURING THE SOIL BORINGS. DURING THE DRILLING OF A WELL, A CERTAIN AMOUNT OF MATERIAL IS EXTRACTED. THIS MATERIAL WAS PLACED IN THE TWO DRUMS TO SECURE THEM ON SITE UNTIL THEY WOULD BE REMOVED, WHEN ADDITIONAL CLEAN UP WORK IS COMPLETED.

COMMENT: THE NEWSPAPER ARTICLE ALSO ALLEGED THAT THE LABORATORY WAS FILLED WITH MANY HARMFUL CHEMICALS AND THE NATURAL GAS JETS WERE STILL BURNING. THEY COULD HAVE BEEN EASILY TURNED OFF WHEN THE 12,000-PLUS BARRELS WERE REMOVED.

RESPONSE: A CONTRACT IS BEING DEVELOPED THROUGH THE PROCUREMENT PROCESS TO REMOVE ALL THE LAB BOTTLES AND MATERIALS. WE THOUGHT THAT ALL THE UTILITIES (GAS AND ELECTRIC) WERE SHUT OFF PRIOR TO THE REMOVAL OF THE 12,000 DRUMS. I UNDERSTAND THAT ALL THE UTILITIES ARE SHUT OFF NOW.

QUESTION: HAS THERE BEEN ANY TESTING ON THE ADJACENT PROPERTY (TO THE SOUTH) FOR POSSIBLE CONTAMINATION?

RESPONSE: THERE WAS A TRENCH THAT SEPARATED THE TWO PROPERTIES OF SYNCON RESINS AND MODERN TRANSPORTATION. THE TRENCH SEEMED TO BE A CATCH BASIN COLLECTING THE CONTAMINATED RUN OFF FROM SYNCON AND DIRECTING IT INTO THE PASSAIC RIVER. THE TRENCH HAS SINCE BEEN FILLED IN. TO DATE, THERE HAS NOT BEEN ANY OFF-SITE TESTING.

COSTS OF ALTERNATIVES

QUESTION: CAN YOU TELL ME HOW MUCH MONEY HAS BEEN SPENT, TO DATE, ON THE SYNCON CLEANUP AND IN WHAT YEAR DID THIS CLEANUP PROCESS BEGIN?

RESPONSE: AS MENTIONED IN THE OPENING PRESENTATION, \$2 MILLION WAS SPENT IN THE BARREL REMOVAL (ACTUAL COST IS \$2.4 MILLION) AND APPROXIMATELY \$550,000 WAS SPENT ON THE RI/FS. THE CLEAN UP WORK TO REMOVE THE BARRELS BEGAN IN FEBRUARY 1984.

QUESTION: WHAT WILL YOU SPEND TO CLEAN UP THE CONTAMINATION CAUSED BY NEGLIGENCE?

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RESPONSE: THE EXPECTED CAPITAL COST OF THE RECOMMENDED ALTERNATIVE IS \$8.3 * MILLION. THE TOTAL PRESENT WORTH COST, WHICH INCLUDES ALL THE OPERATING AND MAINTENANCE COSTS FOR A 30 YEAR PERIOD, WILL BE \$10.3 * MILLION.

QUESTION: IS THE COST OF THE SOIL REMOVAL FROM THE HOT SPOTS INCLUDED IN THE \$8.3 * MILLION?

RESPONSE: EXTENSIVE SOIL REMOVAL COSTS ARE NOT PART OF THE \$8.3 * MILLION.

QUESTION: IS THE \$2.6 MILLION SPENT ALREADY ON SYNCON RESINS PART OF THE \$8 * MILLION CLEAN UP COST? (ACTUAL TOTAL IS \$3.0 MILLION ALREADY SPENT.).

RESPONSE: THE \$8 MILLION IS IN ADDITION TO THE \$2.6 MILLION ALREADY SPENT. (ACTUAL TOTAL IS \$3.0 MILLION ALREADY SPENT.).

* SUBSEQUENT TO THE PUBLIC MEETING, COST ESTIMATES WERE RECALCULATED AND AN ERROR WAS DISCOVERED. THE CORRECT CAPITAL COST IS \$5.6 MILLION AND

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THE TOTAL PRESENT WORTH COST INCLUDING OPERATIONS AND MAINTENANCE FOR THE 30-YEAR PERIOD IS \$7.6 MILLION.

SITING OF AN INCINERATOR IN KEARNY FOR THIS SITE OR OTHER USES

QUESTION: YOUR REPORT MENTIONS THAT YOU PREFER TO INCINERATE SOME OF THE CONTAMINATED MATERIAL. WILL THE INCINERATOR BE LOCATED IN KEARNY?

RESPONSE: ONE OF THE CONSIDERED ALTERNATIVES DID INCLUDE ON-SITE INCINERATION, BUT THAT WAS NOT SELECTED. THE CONTAMINATED MATERIALS WILL BE REMOVED AND SENT TO AN EXISTING, LICENSED INCINERATOR, PROBABLY OUT OF STATE. THERE ARE NO PLANS TO CONSTRUCT AN INCINERATOR ANYWHERE FOR THIS WASTE. THE AMOUNT OF MATERIAL WOULD NOT JUSTIFY CONSTRUCTING AN INCINERATOR TO BE USED ONLY FOR THIS SITE.

COMMENT: THE TOWN OF KEARNY IS CONCERNED THAT AN INCINERATOR SITE WILL BE CONSTRUCTED IN SOUTH KEARNY TO BURN THE CONTAMINATED MATERIALS FROM THE SYNCON SITE.

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RESPONSE: AN INCINERATOR FIELD WOULD FALL WITHIN THE JURISDICTION OF THE HAZARDOUS WASTE SITING COMMISSION. A PETITION WOULD HAVE TO BE MADE TO THE COMMISSION FOR A PERMIT TO SITE ANY HAZARDOUS WASTE INCINERATOR OR FACILITY. THERE ARE NO KNOWN PLANS OF SUCH CONSIDERATIONS FOR KEARNY. IT IS NOT THE NJDEP OR THE USEPA PREFERRED ALTERNATIVE TO CONSTRUCT AN INCINERATOR, AND, PRESUMABLY, IT IS NOT KEARNY'S PREFERRED ALTERNATIVE.

COMMENT: I THINK OUR TOWN SHOULD DEMAND, IN WRITING, THAT THE NJDEP OR USEPA (WHOEVER IS IN CHARGE OF THE SITE) PROVIDE A LEGAL GUARANTEE THAT AN INCINERATOR WILL NOT BE PLACED IN SOUTH KEARNY UNDER ANY CIRCUMSTANCES.

RESPONSE: WHEN THE RECORD OF DECISION (ROD) IS MADE WITH THE FINAL SELECTED ALTERNATIVE, IT WILL BE IN WRITING. IT WILL SERVE AS A BASIS FOR THE GRANT THAT EPA WOULD PROVIDE FOR THE DESIGN AND CONSTRUCTION PHASES FOR MITIGATION OF THE SYNCON SITE. THERE ARE NO PLANS, AT THIS POINT IN TIME, TO CONSTRUCT AN INCINERATOR TO BURN THE WASTE MATERIALS.

SITE SECURITY - PAST, PRESENT, AND FUTURE

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COMMENT: MR. DEWLING IN A WRITTEN RESPONSE TO OUR LETTER STATED THAT THE SYNCON SITE WAS SECURE. SEVERAL INDIVIDUALS, INCLUDING A REPORTER, WENT TO THE SYNCON SITE AND WERE ABLE TO GO BETWEEN SECTIONS OF THE FENCE ONTO THE SITE. CHILDREN ARE RIDING THEIR BICYCLES AND WALKING AROUND THE SITE DUE TO A LACK OF SECURITY OR PROPER FENCING. YOU MUST HAVE A SECURITY GUARD.

RESPONSE: THAT WILL BE TAKEN BACK TO TRENTON AND CONSIDERED.

COMMENT: THE NEWSPAPER ARTICLE (MENTIONED EARLIER) ABOUT THE SITE INDICATES THE FAILURE OF THE FENCING TO SECURE THE SITE. DUE TO THE OVERALL INEXPENSIVENESS OF NEW FENCING COMPARED TO THE TOTAL PROJECT, I WOULD THINK AT LEAST THE FENCING PROBLEM COULD BE IMMEDIATELY RESOLVED.

RESPONSE: WE CAN LOOK INTO THAT RIGHT AWAY.

QUESTION: ARE YOU GOING TO EXTEND THE FENCE INTO THE WATER TO PREVENT ENTRY TO THE SITE?

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RESPONSE: THE FENCE WILL GO ACROSS THE RIVER BANK AT THE SITE.

FUTURE USE OF THE SITE

COMMENT *:WE AGREE THAT THE PROPOSED ALTERNATIVE IS THE MOST FEASIBLE, BUT STRONGLY RECOMMEND ALTERNATIVE #2, WHICH IS THE REMOVAL OF BUILDINGS, TANKS AND SOIL TO AN OFF-SITE WASTE DISPOSAL UNIT. ALTERNATIVE #2, WHILE MORE EXPENSIVE, WOULD PROVIDE THE MOST PROTECTION FOR HEALTH, ENVIRONMENT AND THE USE OF THE LAND AS A RATABLE FOR THE TOWN OF KEARNY.

* THIS IS THE ONLY WRITTEN COMMENT RECEIVED. (SEE ATTACHMENT D.).

RESPONSE: AS YOU INDICATED, ALTERNATIVE #2 WOULD PROVIDE THE MOST COMPLETE HEALTH AND ENVIRONMENTAL PROTECTION BY ELIMINATING EXPOSURE PATHWAYS THROUGH COMPLETE EXCAVATION AND OFF-SITE DISPOSAL. THIS WOULD LEAD TO AN ENHANCED POTENTIAL FOR SITE RE-USE IN THE SHORTEST PERIOD OF TIME.

UNFORTUNATELY, THIS OPTION DOES NOT REPRESENT THE MOST

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FEASIBLE AND COST-EFFECTIVE ALTERNATIVE FOR REMEDIATING

CONDITIONS AT THIS SITE. ALTERNATIVE #2 ACCOUNTS FOR A MASSIVE EXPENDITURE OF OVER \$115,000,000 AND THE TRANSPORTATION TO AND FROM THE SITE OF OVER 300,000 CUBIC YARDS OF MATERIAL. IT WOULD BE AN IDEAL SOLUTION IF WE HAD THE RESOURCES AND OFF-SITE FACILITIES TO DISPOSE OF LARGE AMOUNTS OF CONTAMINATED MATERIAL IN AN ENVIRONMENTALLY ACCEPTABLE MANNER. IT IS A COMMON SITUATION AT HAZARDOUS WASTE SITES STATEWIDE THAT OFF-SITE CLEANUP COSTS AND THE SCARCITY OF OFF-SITE DISPOSAL FACILITIES PROHIBIT SELECTION OF THIS TYPE OF ALTERNATIVE.

QUESTION: HOW MANY YEARS WILL IT TAKE BEFORE THE SITE WILL BE USABLE AS A DEVELOPMENT AREA FOR OTHER COMPANIES?

RESPONSE: MONITORING WILL CONTINUE FOR 30 YEARS ON THIS SITE. WE WILL RETURN AFTER FIVE YEARS TO REASSESS AND EVALUATE THE PROGRESS OF THE SYSTEM IN OPERATION. FOLLOWING COMPLETION OF THE REASSESSMENT AND EVALUATION, A DETERMINATION WILL BE MADE REGARDING SPECIFIC ACTIONS NECESSARY FOR A PERMANENT SOLUTION.

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QUESTION: WHAT INFLUENCE WILL THE POLLUTION FROM THE SYNCON RESINS SITE HAVE ON THE SURROUNDING AREA REGARDING THE FUTURE DEVELOPMENT OF THAT AREA?

RESPONSE: THE FLOW OF THE GROUND WATER WITHIN THE SYNCON SITE IS FROM THE NE TO SW TOWARDS THE PASSAIC RIVER. THE CONTAMINATION TENDS TO MOVE FROM VARIOUS LOCATIONS ON THE SITE DIRECTLY TOWARDS THE RIVER. THE OPERATION INCLUDED IN THE RECOMMENDED ALTERNATIVE WOULD BE WITHIN THE BOUNDARIES OF THE 15 ACRES OF THE SITE. AS PART OF THE ALTERNATIVE, A BARRIER WALL WILL BE CONSTRUCTED FROM THE GROUND SURFACE INTO THE CLAY LAYER ALONG PART OF THE SOUTHERN BOUNDARY, THE ENTIRE RIVER BOUNDARY, AND ALONG PART OF THE NORTHERN BOUNDARY TO PREVENT GROUND WATER FROM LEAVING THE SITE OR COMING IN. FRENCH DRAINS WILL BE CONSTRUCTED TO COLLECT THE WATER FROM THE SITE FOR ON-SITE TREATMENT. FOLLOWING TREATMENT OF THE WATER TO ACCEPTABLE STANDARDS, IT WILL BE DISCHARGED INTO THE PASSAIC RIVER.

QUESTION: HOW MUCH OF THE SITE WILL BE RESTRICTED FROM FUTURE DEVELOPMENT FOR THE 30-YEAR PERIOD?

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RESPONSE: DEVELOPMENT WILL BE PROHIBITED FOR THE ENTIRE SITE FOR 30 YEARS.

QUESTION: WHAT IS THE PURPOSE OF KEEPING 50 YEAR OLD BUILDINGS? IF YOU WANT TO DEVELOP THE LAND, I DO NOT SEE RETAINING THE BUILDINGS AS A FEASIBLE ALTERNATIVE. WOULD IT NOT COST MORE TO DECONTAMINATE THE BUILDINGS THAN TO DESTROY THEM?

RESPONSE: IT WILL COST A GREAT DEAL MORE TO DESTROY THE BUILDINGS THAN IT WOULD TO DECONTAMINATE THEM. IF THEY WERE DESTROYED, THEY WOULD HAVE TO BE REMOVED AND DISPOSED OF IN A HAZARDOUS WASTE FACILITY. THE BUILDINGS THAT ARE STRUCTURALLY SOUND WILL BE LEFT IN PLACE. THE BUILDINGS THAT ARE NOT STRUCTURALLY SOUND WILL BE DEMOLISHED AND REMOVED TO A HAZARDOUS WASTE FACILITY. (THE STUDY DETERMINED THAT ONE SMALL BUILDING WILL BE REMOVED.).

OTHER ISSUES

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QUESTION: DURING THE RI/FS PRESENTATION I COUNTED FOUR DIFFERENT ALTERNATIVE #3'S SHOWN. EACH ONE WAS DIFFERENT THAN THE ONE

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EXPLAINED IN THE HAND OUT (FACT SHEET). THE THIRD ALTERNATIVE ON THE FACT SHEET IS THE ONLY REASONABLE ONE. IF I WISH TO WRITE A LETTER TO THE COMMISSIONER OF DEP, HOW WILL HE KNOW WHICH ALTERNATIVE #3 I AM REFERRING TO?

RESPONSE: ALL THE ALTERNATIVE #3'S ARE THE SAME. IN THE FACT SHEET THE DESCRIPTION IS MORE DETAILED THAN THE DESCRIPTIONS USED ON THE OVER HEAD TRANSPARENCIES. THE TRANSPARENCIES ARE FOR HIGHLIGHTING PURPOSES. THE REAL PURPOSE OF THESE MEETINGS IS TO HEAR FROM YOU, THE PUBLIC. AS A RESULT, WE HAVE DIRECTED OUR CONSULTANTS TO SHORTEN THEIR PRESENTATIONS TO ALLOW MORE TIME FOR PUBLIC COMMENTS. THE ORIGINAL PRESENTATION WAS ABOUT THREE TIMES AS LONG AS TONIGHT'S. THE SHORTENING OF THE PRESENTATION MAY HAVE LED TO A LITTLE CONFUSION BECAUSE EVERY STEP WAS NOT PRESENTED IN DETAIL. MAYBE WE ARE LEARNING FROM THE EXPERIENCE THAT THE PRESENTATION SHOULD NOT BE TOO BRIEF.

COMMENT: THE PEOPLE THAT OWNED THE SYNCON RESINS COMPANY SHOULD BE BROUGHT FORWARD AND MADE TO PAY FOR THE DESTRUCTION THAT THEY CAUSED IN SOUTH KEARNY.

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RESPONSE: THE COMPANY IS IN BANKRUPTCY. THE NJDEP IS THE SAME AS ANY OTHER PARTY SEEKING RESTITUTION. THE NJDEP IS ALREADY PURSUING THAT ISSUE.

QUESTION: HOW SOON WILL THE CLEAN UP BEGIN AT SYNCON RESINS?

RESPONSE: THE PROCESS BEGINS WITH A COMMENT PERIOD TO RECEIVE ADDITIONAL SUGGESTIONS IN WRITING REGARDING NJDEP'S RECOMMENDED ALTERNATIVE. AT THE CLOSE OF THE COMMENT PERIOD, ALL SUGGESTIONS (WRITTEN AND THOSE MADE DURING THIS MEETING) WILL BE EVALUATED. THEN THE NJDEP WILL DEVELOP A RESPONSIVENESS SUMMARY TO BE INCORPORATED IN THE RECORD OF DECISION (ROD). THESE COMMENTS ARE SUBMITTED TO THE USEPA AND EVALUATED BY THEM. IF THE NJDEP AND USEPA AGREE, THE ROD IS SIGNED. THIS IS FOLLOWED BY: NJDEP'S REQUEST TO USEPA FOR FUNDING; THE SIGNING BY BOTH AGENCIES OF A COOPERATIVE AGREEMENT; THE RECEIPT OF THE GRANT FOR FUNDING BY DEP; THE PROCUREMENT PROCESS TO HIRE AN ENGINEERING FIRM; COMPLETION OF THE DESIGN BY THE ENGINEERING FIRM; REAPPLICATION TO EPA FOR CONSTRUCTION FUNDS; THE PROCUREMENT PROCESS AGAIN TO HIRE A CONTRACTOR FOR CONSTRUCTION; AND THEN THE CONSTRUCTION ON SITE. THIS PROCESS

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WILL PROBABLY TAKE A TOTAL OF TWO AND ONE-HALF TO THREE YEARS.

QUESTION: MAY WE HAVE A COPY OF ALL THE MATERIALS FROM THE PRESENTATION MAILED TO US?

RESPONSE: A COPY OF THE SUMMARY PRESENTATION OF THE RI/FS WILL BE SENT TO YOU. YOU ARE WELCOME TO THAT.

COMMENT: WE WOULD LIKE MEMBERS OF THE NJDEP TO TAKE INTERESTED PARTIES (LOCAL AND STATE OFFICIALS AND CONCERNED CITIZENS) ON A TOUR OF THE SYNCON SITE. WE ALSO WOULD LIKE TOURS OF THE SITE AT VARIOUS STAGES OF THE CLEAN UP.

RESPONSE: THE NJDEP DOES NOT PROVIDE ROUTINE TOURS OF HAZARDOUS WASTE SITES FOR THE PUBLIC. HAZARDOUS WASTE SITES ARE HAZARDOUS AND ONLY PROPERLY EQUIPPED AND TRAINED INDIVIDUALS CAN ENTER THESE LOCATIONS. IF ANYONE CALLS THE NJDEP, BUREAU OF COMMUNITY RELATIONS (609-984-3081), WE WOULD GLADLY PROVIDE STATUS UPDATES REGARDING ON-SITE CONDITIONS, SCHEDULES, ETC.

QUESTION: IF I COME TO THE NJDEP IN TRENTON, CAN SOMEONE SIT DOWN WITH ME TO EXPLAIN THE PROPOSED ALTERNATIVE FROM A TO Z? THEN I

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WILL BE ABLE TO PROVIDE AN EXPLANATION OF THE PLAN TO THE CITIZENS OF KEARNY AT MEETINGS AND BY FLYERS.

WE ARE HERE TONIGHT TO DO JUST THAT; TO PROVIDE EXPLANATIONS OF THE PLAN AND TO SOLICIT YOUR COMMENTS. IF YOU HAVE ADDITIONAL QUESTIONS, PLEASE CALL THE NJDEP, BUREAU OF COMMUNITY RELATIONS AT (609) 984-3081 AND ARRANGEMENTS CAN THEN BE MADE TO PROVIDE ANSWERS VIA THE TELEPHONE OR BY MEETING WITH YOU DIRECTLY.

III. REMAINING CONCERNS

BASICALLY, THE COMMUNITY SEEMED PLEASED WITH THE RECOMMENDED ALTERNATIVE FOR THE SYNCON RESINS SITE. THERE ARE PRIMARILY THREE REMAINING CONCERNS:

- THE SECURITY OF THE SITE, NJDEP WILL IMMEDIATELY LOOK INTO SECURING THE SITE WITH THE NECESSARY FENCING.
- THE EFFECT OF THE SITE ON REDEVELOPMENT UNDER THE MASTER PLAN OF SOUTH KEARNY.

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NJDEP STATED THAT THE CLEANUP OF SYNCON RESINS WILL BE CONDUCTED WITHIN THE BOUNDARIES OF THAT SITE.

- THE LENGTH OF TIME UNTIL THE SYNCON RESINS SITE COULD AGAIN BE A PRODUCTIVE RATABLE. NJDEP EXPLAINED THAT ALL DEVELOPMENT WILL BE PROHIBITED FOR THE ENTIRE SITE FOR 30 YEARS.

NOTE: SEPTEMBER 4, 1986 PUBLIC MEETING FACT SHEET CORRECTIONS:

- P.1 REPLACE '147 BULK STORAGE TANKS' WITH '150 BULK STORAGE TANKS AND VESSELS'.
- P.1 REPLACE 'RANGING IN CAPACITY FROM 200 TO 1,323,000 GALLONS' WITH 'RANGING IN CAPACITY FROM 200 TO 610,000 GALLONS'.
- P.1 (FOR CLARIFICATION, PLEASE NOTE) ALTHOUGH A COOPERATIVE AGREEMENT WAS SIGNED FOR THE IRM FOR \$2,000,000, THE FINAL CLEANUP COST FOR THE IRM WAS ACTUALLY \$2,400,000.
- P.3 REPLACE 'A TOTAL OF 147 TANKS' WITH 'A TOTAL OF 150 TANKS'.

N.J. DEPARTMENT OF ENVIRONMENTAL PROTECTION

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DIVISION OF WASTE MANAGEMENT
HAZARDOUS SITE MITIGATION ADMINISTRATION

REMOVAL OF WASTE STORAGE DRUMS
FROM THE

SYNCON RESINS HAZARDOUS WASTE SITE

TUESDAY, FEBRUARY 21, 1984

7:00 P.M.

KEARNY TOWN HALL

KEARNY, N.J.

AGENDA

1. OPENING REMARKS ON COMMUNITY INPUT IN SUPERFUND PROGRAM AND INTRODUCTION OF DEP MEMBERS GRACE SINGER
2. OVERVIEW OF SITUATION AND INTRODUCTION OF CONTRACTOR, O.H. MATERIALS COMPANY OF FINDLAY, OHIO JORGE BERKOWITZ

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3. PRESENTATION: O.H. MATERIALS COMPANY, CONTRACTORS ROBERT PANNING/
JOHN HITCHINGS

4. QUESTIONS AND ANSWERS.

FACT SHEET

REMOVAL OF WASTE STORAGE DRUMS FROM THE SYNCON RESINS
SUPERFUND SITE IN KEARNY, NEW JERSEY

SITE DESCRIPTION

SYNCON RESINS, INC. IS AN INACTIVE PAINT, VARNISH, AND RESIN MANUFACTURING FACILITY LOCATED ON A 15 ACRE TRACT IN SOUTH KEARNY. THE COMPANY WHICH FORMERLY OPERATED THE PLANT HAS FILED FOR BANKRUPTCY. THE SITE IS SITUATED WITHIN A COASTAL WETLANDS MANAGEMENT AREA AND IS BORDERED ON THE WEST BY THE PASSAIC RIVER, A TIDAL WATERWAY.

THERE ARE NOW APPROXIMATELY 9,000 TO 11,000 55-GALLON DRUMS ON SITE, MOST OF WHICH ARE IN POOR CONDITION AND LEAKING. ANALYSIS INDICATED THAT MANY DRUMS CONTAIN HAZARDOUS SUBSTANCES, SOME OF WHICH ARE VOLATILE

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AND FLAMMABLE POSING THE THREAT OF FIRE AND AIR POLLUTION. SEVERAL BULK LIQUID STORAGE TANKS SUSPECTED OF CONTAINING HAZARDOUS SUBSTANCES ARE ALSO ON THE SITE. TWO UNLINED PONDS USED FOR SUBSURFACE DISPOSAL OF PROCESS WASTE WERE SAMPLED AND FOUND TO CONTAIN HAZARDOUS ORGANIC CHEMICALS.

TESTS HAVE INDICATED THE PRESENCE OF PRIORITY POLLUTANTS AND PCBS IN SOIL AND GROUNDWATER SAMPLES.

PROJECT DESCRIPTION

REMEDIAL RESPONSE FOR THIS SITE IS DIVIDED INTO FOUR SEGMENTS:

PART I PROJECT INITIATION FOR PART I IS SCHEDULED FOR EARLY FEBRUARY, 1984 AND IS EXPECTED TO TAKE SIX MONTHS TO COMPLETE.

PHASE I INCLUDES STAGING, TESTING, AND REMOVAL OF THE 55-GALLON DRUMS PRESENTLY ON SITE AS WELL AS INSPECTION OF THE BULK LIQUID STORAGE TANKS.

PHASE II IS DISPOSAL OF THE DRUMS.

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PART II WORK ON PART II ACTIVITIES IS SCHEDULED TO BEGIN IN THE 4TH QUARTER OF 1984 AND IS EXPECTED TO TAKE NINE MONTHS TO COMPLETE.

THIS PART OF THE PROJECT WILL INCLUDE A REMEDIAL INVESTIGATION TO ASSESS SITE CONTAMINATION AND A FEASIBILITY STUDY TO INVESTIGATE REMEDIAL ACTION ALTERNATIVES.

PART III WORK ON THE ENGINEERING DESIGN IS SCHEDULED TO BEGIN IN THE 1ST QUARTER OF 1986 AND IS EXPECTED TO TAKE THREE MONTHS TO COMPLETE.

PART IV SCHEDULING OF THE IMPLEMENTATION OF THE DESIGN IS DEPENDENT ON THE WORK DETAILED IN THAT DOCUMENT.

PROJECT FUNDING

TWO MILLION DOLLARS TO COMPLETE PART I OF THE REMEDIAL ACTION PROJECT, 90% OF WHICH IS PROVIDED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY AS PART OF THE SUPERFUND PROGRAM. THE REMAINING 10% WILL BE PROVIDED BY THE STATE OF NEW JERSEY FROM ITS SPILL COMPENSATION FUND.

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N.J. DEPARTMENT OF ENVIRONMENTAL PROTECTION.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION DIVISION OF WASTE MANAGEMENT HAZARDOUS SITE MITIGATION ADMINISTRATION

A COMMUNITY RELATIONS PROGRAM AT SUPERFUND HAZARDOUS WASTE SITES

AS PART OF THE FEDERAL/STATE PROGRAM OF CLEANUP AT HAZARDOUS WASTE SITES, A COMMUNITY RELATIONS PROGRAM IS CONDUCTED TO RECEIVE LOCAL INPUT AND TO ADVISE LOCAL RESIDENTS AND OFFICIALS ABOUT THE PLANNED REMEDIAL ACTIONS AT THE THREE MAJOR STAGES OF THE CLEANUP: 1) FEASIBILITY STUDY 2) ENGINEERING DESIGN AND 3) REMOVAL/TREATMENT/CONSTRUCTION. LOCAL BRIEFINGS AND MEETINGS ARE CONDUCTED WITH ELECTED OFFICIALS AND RESIDENTS AND GENERALLY TAKE PLACE AT:

1) THE COMMENCEMENT OF A REMEDIAL INVESTIGATION/FEASIBILITY STUDY SO THAT LOCAL CONCERNS CAN BE ADDRESSED EARLY IN THE PROCESS.

2) THE COMPLETION OF A FEASIBILITY STUDY TO DISCUSS THE ALTERNATIVE

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COURSES OF REMEDIAL ACTION. THERE IS A 30-DAY COMMENT PERIOD AFTER PUBLIC PRESENTATION OF THE ALTERNATIVES.

3) THE ENGINEERING DESIGN STAGE TO CARRY OUT THE MANDATES OF THE SELECTED REMEDIAL ALTERNATIVE.

4) THE COMMENCEMENT OF THE REMOVAL/TREATMENT/CONSTRUCTION STAGE TO ADVISE OF THE EXPECTED PHYSICAL REMEDIAL ACTION.

5) THE COMPLETION OF THE REMEDIAL ACTION.

IN ADDITION TO THE MORE FORMAL ACTIVITIES OUTLINED ABOVE, THERE IS GENERALLY INFORMAL COMMUNICATION WITH LOCAL OFFICIALS AND RESIDENTS. DEPENDING UPON WHETHER THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) OR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

(EPA) HAS THE LEAD IN REMEDIAL ACTION AT A SITE, COMMUNITY RELATIONS
ACTIVITY IS CONDUCTED BY THE RELEVANT STATE OR FEDERAL AGENCY.

IN NEW JERSEY AT DEP, THE COMMUNITY RELATIONS PROGRAM IS CONDUCTED
BY GRACE SINGER, COMMUNITY RELATIONS PROGRAM MANAGER (609) 984-3081.
AT REGION II, EPA, THE CONTACT PERSON IS LILLIAN JOHNSON

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(212) 264-2515.

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE

PUBLIC MEETING TO DISCUSS
COMMENCEMENT OF
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
AT
SYNCON RESINS
TOWN OF KEARNY
HUDSON COUNTY

A PUBLIC MEETING WILL BE HELD BY THE NEW JERSEY DEPARTMENT OF
ENVIRONMENTAL PROTECTION TO DISCUSS THE INITIATION OF THE REMEDIAL
INVESTIGATION/FEASIBILITY STUDY AT THE SYNCON RESINS SITE. THIS MEETING
HAS BEEN SCHEDULED TO REPLACE THE JANUARY 31, 1985 PUBLIC MEETING WHICH
WAS CANCELLED DUE TO A WEATHER EMERGENCY.

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THE MEETING WILL BE HELD ON:

THURSDAY, APRIL 25, 1985
7:00 P.M.
KEARNY TOWN HALL
400 KEARNY AVENUE
KEARNY, NJ
(201) 991-2700

FOR FURTHER INFORMATION, PLEASE CONTACT GRACE SINGER AT (609) 984-3081.

HS85:JS.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF WASTE MANAGEMENT

HAZARDOUS SITE MITIGATION ADMINISTRATION

PUBLIC MEETING
ON

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COMMENCEMENT OF
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
AT THE
SYNCON RESINS SITE

THURSDAY, JANUARY 31, 1985
7:00 P.M.
KEARNY TOWN HALL

850090212

400 KEARNY AVENUE
KEARNY, NJ

AGENDA

- 1) OPENING REMARKS; MS. GRACE L. SINGER, CHIEF
INTRODUCTION OF NJDEP PERSONNEL OFFICE OF COMMUNITY RELATIONS
NJDEP

- 2) OVERVIEW OF PAST HISTORY AND MR. RUSSELL TRICE, SITE MANAGER
CURRENT SITUATION; BUREAU OF SITE MANAGEMENT
INTRODUCTION OF CONTRACTOR; NJDEP
EBASCO SERVICES, INC.

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- 3) PRESENTATION: REMEDIAL MR. GARRY CUSACK,
INVESTIGATION/FEASIBILITY STUDY PROJECT DIRECTOR
EBASCO SERVICES, INC.
4) QUESTIONS AND ANSWERS.

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

FACT SHEET

PUBLIC MEETING
ON
COMMENCEMENT OF
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
AT
SYNCON RESINS SITE
TOWN OF KEARNY
HUDSON COUNTY
APRIL 25, 1985

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SITE DESCRIPTION: SYNCON RESINS IS AN INACTIVE PAINT, VARNISH, AND
RESIN MANUFACTURING FACILITY SITUATED WITHIN AN
INDUSTRIALIZED SECTION OF A COASTAL WETLANDS
MANAGEMENT AREA. THIS 15-ACRE SITE IS BORDERED ON
THE WEST BY THE PASSAIC RIVER, A TIDAL WATERWAY, AND
ON THE EAST BY JACOBUS AVENUE. THERE WERE 12,824
55-GALLON DRUMS ON SITE, MOST OF WHICH WERE IN POOR
CONDITION AND LEAKING. ANALYSES INDICATED THAT MANY
CONTAINED HAZARDOUS SUBSTANCES INCLUDING VOLATILE
AND FLAMMABLE MATERIALS WHICH POSED AN IMMEDIATE
FIRE AND AIR POLLUTION THREAT. PRESENTLY REMAINING
ON SITE ARE: 144 BULK STORAGE TANKS, RANGING IN
CAPACITY FROM 375 GALLONS TO 600,000 GALLONS AND
CONTAINING VARIOUS HAZARDOUS MATERIALS; TWO UNLINED
LAGOONS USED FOR SUBSURFACE DISPOSAL OF PROCESS
WASTE WHICH WERE SAMPLED AND FOUND TO CONTAIN
HAZARDOUS ORGANIC CHEMICALS; AND FIVE SUSPECTED
UNDERGROUND STORAGE TANKS WITH THEIR ASSOCIATED
PIPING SYSTEMS. AMONG THE DIVERSE CONTAMINANTS
FOUND AT THIS SITE ARE: SOLVENTS, WASTE OILS,
CORROSIVES, ORGANIC LIQUIDS, SOLIDS, ACIDS,

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ALKALIES, KETONES, AND INORGANIC LIQUIDS AND SOLIDS.

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SOIL, SHALLOW GROUND WATER AND SURFACE WATER SAMPLES INDICATE THE PRESENCE OF VARIOUS POLLUTANTS INCLUDING TOLUENE, XYLENE, PCBS, HEAVY METALS, PESTICIDES AND CYANIDE.

BACKGROUND: IN NOVEMBER 1981, AN ADMINISTRATIVE ORDER WAS ISSUED BY THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NJDEP) REQUIRING SYNCON RESINS TO CONTROL AND CONTAIN THE HAZARDS AT THE SITE. HOWEVER, THE COMPANY HAS SINCE FILED FOR BANKRUPTCY. A REMEDIAL ACTION MASTER PLAN (RAMP) WAS PREPARED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA) IN NOVEMBER, 1982. A COOPERATIVE AGREEMENT WAS SIGNED IN DECEMBER 1982 COMMITTING \$2,000,000 FOR THE INITIAL REMEDIAL MEASURE (IRM) AND \$350,000 FOR A SUBSEQUENT REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS).

CLEANUP WORK IN THE INITIAL REMEDIAL MEASURE BEGAN IN FEBRUARY, 1984 AND WAS COMPLETED IN AUGUST, 1984.

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THIS INCLUDED:

- THE INSPECTION, SAMPLING, AND DISPOSAL OF ALL 12,824 DRUMS. (PRIOR TO THE DISPOSAL, THE CONTENTS WERE GROUPED INTO CATEGORIES OF COMPATIBILITY.);
- THE COMPLETION OF A TANK AND VESSEL REPORT WHICH DETERMINED THE CAPACITY AND INTEGRITY OF EACH TANK AND VESSEL, THE QUANTITY AND PHASE (LIQUID, SOLID OR GAS) OF THE CONTAINED MATERIAL WITH A NUMBER ASSIGNED TO EACH;
- TRANSPORTATION, TREATMENT AND/OR DISPOSAL OF THE WASTE.

STATUS: IN NOVEMBER, 1984 NJDEP AWARDED THE CONTRACT FOR A REMEDIAL INVESTIGATION/FEASIBILITY STUDY TO EBASCO SERVICES, INC. OF NEW YORK CITY. THE SCOPE-OF-WORK INVOLVES THE FOLLOWING ACTIVITIES:

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- EVALUATION OF ALL BACKGROUND INFORMATION, CONFIRMATION OF THE LEVEL OF PROTECTIVE EQUIPMENT TO BE PROVIDED TO PERSONNEL DURING SITE INVESTIGATIONS AND PREPARATION OF A HEALTH AND SAFETY PLAN, A FIELD SAMPLING PLAN AND A QUALITY ASSURANCE/QUALITY CONTROL PLAN FOR THE SYNCON RESINS SITE.
- IDENTIFICATION, TO THE EXTENT POSSIBLE, OF THE TYPE, SOURCE, LOCATION AND QUANTITY OF HAZARDOUS WASTES PRESENT AT THE SITE.
- DETERMINATION OF THE NATURE, EXTENT AND SEVERITY OF GROUND WATER CONTAMINATION BENEATH THE SITE AND ITS IMPACT ON THE SURROUNDING AREAS.
- DETERMINATION OF THE NATURE, EXTENT AND

SEVERITY OF SOIL CONTAMINATION AT THE SITE.

- DETERMINATION OF THE NATURE, EXTENT AND

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SEVERITY OF SURFACE WATER CONTAMINATION AT THE
SITE AND ITS IMPACT ON RELATED SURFACE STREAMS
AND WATER BODIES.

- AIR MONITORING TO DETERMINE THE NATURE AND
EXTENT OF GASEOUS EMISSIONS.
- SELECTION OF REMEDIAL RESPONSE OBJECTIVES AND
IDENTIFICATION OF ALTERNATIVES.
- EVALUATION OF ALTERNATIVES AND SELECTION OF AN
ENVIRONMENTALLY SOUND, COST-EFFECTIVE REMEDIAL
ACTION.
- DEVELOPMENT OF THE CONCEPTUAL DESIGN OF THE
SELECTED REMEDIAL ACTION AND PREPARATION OF THE
FINAL REPORT.

NJDEP
4/85.

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF WASTE MANAGEMENT

HAZARDOUS SITE MITIGATION ADMINISTRATION

A COMMUNITY RELATIONS PROGRAM AT SUPERFUND HAZARDOUS WASTE SITES

AS PART OF THE FEDERAL/STATE PROGRAM OF CLEANUP AT HAZARDOUS WASTE
SITES, A COMMUNITY RELATIONS PROGRAM IS CONDUCTED TO RECEIVE LOCAL INPUT
AND TO ADVISE LOCAL RESIDENTS AND OFFICIALS ABOUT THE PLANNED REMEDIAL
ACTIONS AT THE THREE MAJOR STAGES OF THE CLEANUP: 1) REMEDIAL
INVESTIGATION/FEASIBILITY STUDY 2) ENGINEERING DESIGN AND
3) REMOVAL/TREATMENT/CONSTRUCTION. LOCAL BRIEFINGS AND MEETINGS ARE
CONDUCTED WITH ELECTED OFFICIALS AND RESIDENTS AND GENERALLY TAKE
PLACE AT:

1) THE COMMENCEMENT OF A REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SO THAT LOCAL CONCERNS CAN BE ADDRESSED EARLY IN THE PROCESS.

2) THE COMPLETION OF A FEASIBILITY STUDY TO DISCUSS THE ALTERNATIVE

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COURSES OF REMEDIAL ACTION. THERE IS A 30-DAY COMMENT PERIOD
AFTER PUBLIC PRESENTATION OF THE ALTERNATIVES DURING WHICH THE
FEASIBILITY STUDY IS AVAILABLE IN LOCAL REPOSITORIES.

3) THE ENGINEERING DESIGN STAGE TO CARRY OUT THE MANDATES OF THE
SELECTED REMEDIAL ALTERNATIVE.

4) THE COMMENCEMENT OF THE REMOVAL/TREATMENT/CONSTRUCTION STAGE
TO ADVISE OF THE EXPECTED PHYSICAL REMEDIAL ACTION.

5) THE COMPLETION OF THE REMEDIAL ACTION.

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IN ADDITION TO THE ACTIVITIES OUTLINED ABOVE, THERE IS GENERALLY ONGOING COMMUNICATION WITH LOCAL OFFICIALS AND RESIDENTS AS REQUIRED. DEPENDING UPON WHETHER THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) OR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) HAS THE LEAD IN REMEDIAL ACTION AT A SITE, COMMUNITY RELATIONS ACTIVITIES ARE CONDUCTED BY THE RELEVANT STATE OR FEDERAL AGENCY.

IN NEW JERSEY, THE DEP COMMUNITY RELATIONS PROGRAM IS DIRECTED BY GRACE SINGER, CHIEF, OFFICE OF COMMUNITY RELATIONS (609) 984-3081. AT

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REGION II, EPA, THE CONTACT PERSON IS LILLIAN JOHNSON, COMMUNITY RELATIONS COORDINATOR (212) 264-2515.

HS45:JS
4/85.

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF HAZARDOUS SITE MITIGATION

PUBLIC MEETING
ON

COMPLETION OF
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
AT

SYNCON RESINS SITE
TOWN OF KEARNY
HUDSON COUNTY

THURSDAY, SEPTEMBER 4, 1986

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7:00 P.M.
KEARNY TOWN HALL
400 KEARNY AVENUE
KEARNY, NJ

AGENDA

1. OPENING REMARKS AND MR. RICHARD C. SALKIE, P.E.,
INTRODUCTIONS ACTING DIRECTOR
DIVISION OF HAZARDOUS SITE MITIGATION
2. OVERVIEW OF PAST HISTORY DR. ADI ALETI, P.E., SITE MANAGER
AND CURRENT SITUATION DIVISION OF HAZARDOUS SITE MITIGATION
3. PRESENTATION: MR. THOMAS GRANGER, PROJECT MANAGER
REMEDIAL EBASCO SERVICES, INC.
INVESTIGATION/FEASIBILITY
STUDY
4. NJDEP RECOMMENDED MR. RICHARD C. SALKIE, P.E.
ALTERNATIVE

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5. COMMENTS AND QUESTIONS THE FLOOR WILL BE OPEN FOR COMMENTS
AND QUESTIONS AT THIS TIME.

FACT SHEET

850090216

RESULTS OF
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
AT
SYNCON RESINS SITE
TOWN OF KEARNY
HUDSON COUNTY
SEPTEMBER 4, 1986

SITE DESCRIPTION

SYNCON RESINS IS AN INACTIVE PAINT, VARNISH, AND RESIN MANUFACTURING FACILITY SITUATED WITHIN AN INDUSTRIALIZED SECTION OF A COASTAL WETLANDS MANAGEMENT AREA. THIS 15-ACRE SITE IS BORDERED ON THE WEST BY THE PASSAIC RIVER, AND ON THE EAST BY JACOBUS AVENUE. THERE WERE 12,824 55-GALLON DRUMS ON SITE, MOST OF WHICH WERE IN POOR CONDITION AND

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LEAKING PRIOR TO THEIR DISPOSAL IN 1984. ANALYSES INDICATED THAT MANY OF THESE DRUMS CONTAINED HAZARDOUS SUBSTANCES INCLUDING VOLATILE AND FLAMMABLE MATERIALS WHICH POSED AN IMMEDIATE FIRE AND AIR POLLUTION THREAT.

PRESENTLY REMAINING ON SITE ARE: THIRTEEN STRUCTURES AND BUILDINGS; 147 BULK STORAGE TANKS (RANGING IN CAPACITY FROM 200 TO 1,323,000 GALLONS AND CONTAINING VARIOUS HAZARDOUS MATERIALS); TWO UNLINED LAGOONS (USED FOR SUBSURFACE DISPOSAL OF PROCESS WASTE) CONTAINING HAZARDOUS ORGANIC CHEMICALS; AND FIVE SUSPECTED UNDERGROUND STORAGE TANKS WITH THEIR ASSOCIATED PIPING SYSTEMS. AMONG THE DIVERSE CONTAMINANTS FOUND AT THIS SITE ARE: SOLVENTS, WASTE OILS, CORROSIVES, ORGANIC LIQUIDS, SOLIDS, ACIDS, ALKALIES, KETONES, AND INORGANIC LIQUIDS AND SOLIDS. SOIL, SHALLOW GROUND WATER AND SURFACE WATER SAMPLES INDICATE THE PRESENCE OF VARIOUS POLLUTANTS INCLUDING TOLUENE, XYLENE, POLYCHLORINATED BIPHENYLS (PCBS), HEAVY METALS, PESTICIDES AND CYANIDE.

BACKGROUND

IN NOVEMBER 1981, AN ADMINISTRATIVE ORDER WAS ISSUED BY THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AGENCY (NJDEP) REQUIRING SYNCON

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RESINS TO CONTROL AND CONTAIN THE HAZARDS AT THE SITE. HOWEVER, THE COMPANY CEASED OPERATION IN 1982 AND FILED FOR BANKRUPTCY. THE SYNCON RESINS SITE WAS INCLUDED ON THE NATIONAL PRIORITIES LIST (NPL) IN SEPTEMBER 1983. OF THE 97 NEW JERSEY SITES ON NPL, THE SYNCON RESINS SITE IS RANKED 48TH. A REMEDIAL ACTION MASTER PLAN (RAMP) WAS PREPARED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA) IN NOVEMBER 1982. A COOPERATIVE AGREEMENT WAS SIGNED BY THE USEPA AND NJDEP IN DECEMBER 1982, COMMITTING \$2,000,000 IN FEDERAL FUNDS FOR THE INITIAL REMEDIAL MEASURE (IRM). CLEANUP WORK UNDER THE IRM BEGAN IN FEBRUARY 1984 AND WAS COMPLETED IN AUGUST 1984. THIS INCLUDED: DISPOSAL OF ALL 12,824 DRUMS; TREATMENT AND/OR REMOVAL OF THE WASTES THAT WERE CONTAINED IN THE 12,824 DRUMS; AND AN INVENTORY AND CONTENT EVALUATION OF THE TANKS AND VESSELS.

IN DECEMBER 1982, THE NJDEP AND THE USEPA SIGNED A COOPERATIVE AGREEMENT FOR A REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) AT THIS SITE. IN NOVEMBER 1984, NJDEP AWARDED THE CONTRACT FOR THE REMEDIAL INVESTIGATION/FEASIBILITY STUDY TO EBASCO SERVICES, INC. OF NEW YORK CITY. THE COST OF THIS STUDY IS APPROXIMATELY \$550,000.

STATUS

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THE DRAFT REMEDIAL INVESTIGATION/FEASIBILITY STUDY WAS COMPLETED IN AUGUST 1986 AND HAS BEEN AVAILABLE SINCE AUGUST 21, 1986 AT THE FOLLOWING REPOSITORIES: KEARNY PUBLIC LIBRARY IN KEARNY, HUDSON COUNTY LAW LIBRARY IN JERSEY CITY, KEARNY TOWN HALL IN KEARNY, AND THE NJDEP, DIVISION OF HAZARDOUS SITE MITIGATION IN TRENTON. THE PUBLIC COMMENT PERIOD WILL EXTEND UNTIL SEPTEMBER 11, 1986. ANY COMMENTS ON THE STUDY SHOULD BE SUBMITTED TO KEVIN KRATINA AT NJDEP, BUREAU OF COMMUNITY RELATIONS, CN028 - 432 EAST STATE STREET, TRENTON, NJ 08625. AFTER CONSIDERING ALL PUBLIC COMMENTS, NJDEP AND USEPA WILL DETERMINE THE SELECTED REMEDIAL ALTERNATIVE FOR THE SITE AND SIGN A RECORD OF DECISION WHICH WILL SPECIFY THE DETAILS OF THE LONG-TERM SITE CLEANUP.

SUMMARY OF REMEDIAL INVESTIGATION/FEASIBILITY STUDY

THE FOLLOWING REMEDIAL OBJECTIVES WERE ESTABLISHED FOR THE SITE AS A RESULT OF THE SITE INVESTIGATIONS AND RISK ASSESSMENT:

- MITIGATIVE MEASURES SHOULD BE DEVELOPED TO PREVENT HUMAN EXPOSURE TO ORGANIC AND METAL CONTAMINANTS FOUND WITHIN UNSATURATED SOIL, LAGOON SEDIMENTS, AND DIRT/DUST IN ON-SITE BUILDINGS.

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- MITIGATIVE MEASURES SHOULD BE TAKEN TO ELIMINATE THE POTENTIAL HAZARD TO NEARBY POPULATIONS CAUSED BY THE CHEMICAL MATERIALS REMAINING IN THE ON-SITE TANKS AND VESSELS AND THEIR ASBESTOS COVERINGS.
- MITIGATIVE MEASURES SHOULD BE TAKEN TO REMEDIATE THE CONTAMINATED GROUND WATER WITHIN THE SHALLOW AQUIFER AND SATURATED SOILS ABOVE THE CONTINUOUS CLAY LAYER.

BASED ON THE ABOVE LISTED OBJECTIVES, THE REMEDIAL INVESTIGATION INCLUDED THE FOLLOWING ACTIVITIES:

- IDENTIFICATION OF THE TYPE, SOURCE, LOCATION AND QUANTITY OF HAZARDOUS WASTES AT THE SITE.
- DETERMINATION OF THE NATURE, EXTENT AND SEVERITY OF GROUND WATER CONTAMINATION BENEATH THE SITE AND ITS IMPACT ON THE SURROUNDING AREAS.
- DETERMINATION OF THE NATURE, EXTENT AND SEVERITY OF SOIL CONTAMINATION AT THE SITE.

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- DETERMINATION OF THE NATURE, EXTENT AND SEVERITY OF SURFACE WATER CONTAMINATION AT THE SITE AND ITS IMPACT ON RELATED SURFACE STREAMS AND WATER BODIES.
- AIR MONITORING TO DETERMINE THE NATURE AND EXTENT OF GASEOUS EMISSIONS.

RESULTS OF THE REMEDIAL INVESTIGATION

- A TOTAL OF 147 TANKS AND VESSELS ARE PRESENT ON SITE. SEVENTY-THREE TANKS CONTAIN LESS THAN THREE INCHES OF LIQUID MATERIAL OR CONTAIN RESIDUAL SCALE MATERIAL. THIRTY-EIGHT TANKS CONTAIN EITHER HEXANE OR WATER SOLUBLE PEROXIDES. NINETEEN TANKS CONTAIN HEXANE SOLUBLE LIQUIDS AND SOLIDS. FOURTEEN TANKS CONTAIN FLAMMABLE LIQUIDS OR SOLIDS, CRYSTALLINE AND POLYMERIC MATERIAL, OR SLUDGE RESIDUES. FOUR TANKS CONTAIN AQUEOUS LIQUIDS AND TWO TANKS

CONTAIN CYANIDE POSITIVE ORGANIC LIQUIDS. EIGHT TANKS CONTAIN PCBS AT CONCENTRATIONS GREATER THAN 50 PARTS PER MILLION (PPM).

- CONTAMINATION WITH ORGANIC COMPOUNDS IS WIDESPREAD THROUGHOUT THE
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SITE. THE GREATEST CONCENTRATIONS OF VOLATILE ORGANICS WERE FOUND IN LAGOON SEDIMENTS, SOIL AT THE SOUTHWEST CORNER OF THE SITE, AND IN TWO BUILDINGS. THESE PRIMARILY INCLUDE TOLUENE, XYLENE, TRICHLOROETHYLENE (TCE), ETHYLBENZENE, 2-HEXANONE (MBK), METHYL ISOBUTYL KETONE (MIBK), AND CHLOROBENZENE. THE SHALLOW GROUND WATER BENEATH THE SITE IS ALSO CONTAMINATED WITH PRIMARILY THE SAME VOLATILE ORGANIC SOLVENTS, BUT ONLY AT CERTAIN LOCATIONS. TWO OTHER ORGANIC COMPOUND SOLVENTS (I.E. 1,1-DICHLOROETHANE AND CHLOROBENZENE) ARE PRESENT IN THE DEEP AQUIFER AT VERY LOW LEVELS.

- CONTAMINATION WITH ACID/BASE NEUTRAL ORGANIC COMPOUNDS IS WIDESPREAD THROUGHOUT THE SITE. THE ON-SITE SOILS ABOVE THE CLAY LAYER CONTAIN PRINCIPALLY PHTHALATES (DIETHYL, DIBUTYL, DIOCTYL, AND BIS (2-ETHYLHEXYL PHTHALATE), POLYAROMATIC HYDROCARBONS (17 COMPOUNDS), DICHLOROBENZENE, N-NITROSODIPHENYLAMINE, AND 4-METHYLPHENOL. THE SHALLOW WATER TABLE (ABOVE THE CLAY LAYER) CONTAINS PRINCIPALLY NAPHTHALENE AND 2-METHYL NAPHTHALENE IN TWO GENERAL AREAS. NO BASE NEUTRAL COMPOUNDS WERE DETECTED IN THE DEEP AQUIFER BENEATH THE CLAY LAYER.

- PESTICIDE CONTAMINATION (ALDRIN, DDT AND ITS ASSOCIATED BREAKDOWN
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PRODUCTS) WAS FOUND IN THE SOILS IN SEVERAL AREAS, INCLUDING THE DUST/DIRT INSIDE SEVERAL BUILDINGS.

- PCB CONTAMINATION IS RESTRICTED TO LAGOON SEDIMENTS, TANK CONTENTS, CERTAIN BUILDINGS, AND SOIL IN SPECIFIC LOCATIONS OF THE SITE.

- METAL CONTAMINATION IS PRESENT IN THE SOIL, SHALLOW GROUND WATER, LAGOON SEDIMENT, AND BUILDINGS. THE MAJOR CONTAMINANTS IN THE SHALLOW GROUND WATER ARE ARSENIC, CADMIUM, CHROMIUM, LEAD AND ZINC. THE LAGOON SEDIMENTS AND THE BUILDINGS' DIRT/DUST CONTAIN CHROMIUM, CADMIUM, NICKEL AND BARIUM.

SUMMARY OF REMEDIAL ALTERNATIVES FOR LONG-TERM SITE REMEDIATION

- ALTERNATIVE 1 - MINIMAL ACTION

THIS ENTAILS SECURING THE STRUCTURES AND IMPROVING FENCING CONDITIONS AROUND THE PERIMETER OF THE SITE.

- ALTERNATIVE 2 - REMOVAL OF BUILDINGS, TANKS, AND SOIL FOR OFF-SITE DISPOSAL